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FUNDING FOR THE FEDERAL-AID HIGHWAY PROGRAM

HEARINGS

BEFORE THE

SUBCOMMITTEE ON TRANSPORTATION

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

NINETY-SIXTH CONGRESS

SECOND SESSION

ON

S. 2913

A BILL TO AUTHORIZE APPROPRIATIONS FOR THE CONSTRUCTION OF CERTAIN HIGHWAYS IN ACCORDANCE WITH TITLE 23 OF THE UNITED STATES CODE, FOR HIGHWAY SAFETY, AND FOR OTHER PURPOSES

AUGUST 19 AND SEPTEMBER 9, 1980

SERIAL NO. 96-H59

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FUNDING FOR THE FEDERAL-AID HIGHWAY PROGRAM

TUESDAY, AUGUST 19, 1980

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON TRANSPORTATION,
Washington, D.C.

The subcommittee met at 9:30 a.m., in room 4200, Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman), presiding.

Present: Senators Randolph, Bentsen, Burdick, and Stafford.

Senator BENTSEN. Good morning.

OPENING STATEMENT OF HON. LLOYD BENTSEN, U.S. SENATOR FROM THE STATE OF TEXAS

Senator BENTSEN. Today, the Transportation Subcommittee is going to hear testimony on S. 2913. That is the Federal-Aid Highway Revenue Act of 1980.

We have invited testimony today from Federal and State officials. At a subsequent hearing, we expect to hear from local governments on the city and county level, user groups and associations, and other witnesses representing the public. In addition to these hearings, we welcome and expect to receive written statements from other interested parties right up to September 23. It is our objective to have as much useful thinking and comment at this time as we can obtain.

This will be an effective trial piece of legislation to try to get the debate started and to see what ideas we can get to improve it.

Since 1978, when this committee last considered major highway legislation, we have heard that the emphasis in the 1978 act was well received. It was in 1978 that this committee acted to emphasize the need for more expeditious completion of the Interstate System. Also in 1978, this committee increased the emphasis on rehabilitation and preservation of the existing highway network. It just doesn't make any sense at all to spend billions of dollars on the largest public works project ever undertaken by any Nation and then let it go to potholes and go to seed and not maintain it. So S. 2913, the subject of today's hearing, continues that emphasis on the interstate that is now over 90 percent complete, but it is getting more expensive to build as the years go by. The original cost estimate in 1958 was $41 billion. So far it has cost over $66 billion to do 92 percent over 22 years. The remaining 8 percent is estimated to cost $42 billion. That means that before we are through, the last 10 percent could cost more than the first 90 percent.

We have heard the Interstate System referred to as a national resource. It provides the means for a more energy-efficient means of transportation. Unfortunately, there are gaps in the system. Many of us have come upon one of those gaps at one time or another, and I think we can all agree that there is a significant difference in the amount of time and energy required to travel those miles. The roads in the area of the gap suffer, too, especially where they are older and not built to the same standards as the interstate.

So we are looking for the correct incentive to get those gaps closed up quickly. S. 2913 separates the gap-completion funds from reconstruction funds. We want to see the highway trust fund used to complete the Interstate System. We are holding these hearings to get your advice on how to get this done.

We have another problem with bridges. We look for answers from you on how we can best rehabilitate or replace the ones that need to be done. There is a limit to available funds, and we have seen some estimates that really boggle the mind: 56,700 deficient bridges on the Federal-aid system and 124,000 off-system. That is a total of 181,000 bridges that, according to the evaluation of the States, are functionally obsolete or can no longer support heavy loads.

The current cost estimate is over $33 billion. That is a tough problem, and we recognize there is a Federal role involved. We began this kind of a program in 1971, authorizing $100 million for bridge replacement. In 1978, the most recent major highway legislation was enacted, and we renewed the emphasis on the condition of those bridges. It is important that we continue to reassess the Federal role in the bridge program. The sheer magnitude of the costs involved requires some difficult decisions be made, and we will make them. The Federal effort must be equitable, but it also must be cost-effective. What are the kinds of rehabilitation that the Federal Government should do? What about the differences between the Federal interest in off-system and on-system bridges? For example, it is clear that we must protect the Federal investment in the Interstate System. We think the expanded 3-R program is the way to do that. Off-system bridges are another matter. They have been traditionally managed and repaired by State and local governments, and I am not sure how far we can go in assisting in that regard, and it is tough to know where to draw the line. These hearings are a chance to have you give us your ideas on it.

There is a second title in S. 2913. It is a revenue title, and it will require this bill to also be shared by the Finance Committee in the Senate. That gets to the point of "user pays." Since it began in 1956, the highway trust fund has been the funding mechanism for Federal aid highway and bridge construction and rehabilitation. Since it began in 1956, the highway trust fund has been supplied with revenue from taxes paid directly by the people who use the highways and bridges. A major source of that revenue has been, and still is, the 4-cent-per-gallon tax levied on gasoline and diesel fuel used on the highways. We are already beginning to see some exemption from that. We are seeing it on gasohol. We are seeing the other problem of cars that fortunately give better gasoline mileage, but that also means less revenue to the highway trust fund.

But at the same time that has happened and revenue has flattened, and obviously it is going to go down, we are seeing replacement costs skyrocketing because of inflation. So in looking to the future and trying to decide what we can do about it, what we are considering here is going to a percentage tax—4-percent percentage tax—and we are proposing it on the wholesale price, that you would have a 6-months computation of the average wholesale price of gasoline done by the Secretary of the Treasury in consultation with the Department of Energy and Department of Transportation. Then that price would be set for the forthcoming 6 months—the tax—and it would be rounded off to the nearest penny. Now at the present wholesale price of gasoline, that would equate to the 4 cents, since the wholesale price approximates a dollar, but one would assume the price of gasoline will continue to escalate. If it does, then the percentage approach to the tax would allow some melding together of the inflationary costs that you are finding in highway construction and in the rehabilitation of highways. And maybe that will meet with a little better reception than did the 10-cent gasoline tax.

I remember I proposed a 35-cent gasoline tax back at the time of the embargo, Mr. Administrator. I proposed it to the Democratic policy committee. One of my friends on that committee, John Pastore, said, "Not me." And I said why? He said, "Well, when I was Governor of Rhode Island, I passed a 1-cent gasoline tax, and they named it after me."

So I am not sure what result we will have, but we certainly need to do something with the inflation problems we are having.

I would defer to my colleague from North Dakota, Senator Burdick.

Senator BURDICK. I defer to the chairman.

Senator BENTSEN. Oh, Mr. Chairman, we are delighted to have you here.

Senator RANDOLPH. Thank you, Mr. Chairman.

Senator BENTSEN. Would you care to comment, Mr. Chairman?

OPENING STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator RANDOLPH. Yes; I appreciate the opportunity. I have been talking about the 45th anniversary of the Social Security Act with some people this morning, that was signed 45 years ago last Thursday, and there are some programs and problems that arise at this later date. I remember voting for that legislation, the only Member of the Congress now serving who did that.

Senator BENTSEN. Mr. Chairman, I was such a mere lad at that time.

Senator RANDOLPH. You were a mere lad.

Senator BENTSEN. I would like to congratulate you.

Senator RANDOLPH. I am pleased to join with the chairman of our Subcommittee on Transportation, Senator Bentsen as the subcommittee opens hearings on legislation to extend the Federal-aid highway program and make recommendations to the Finance Committee with respect to future revenues for the highway trust fund. Since the Highway Revenue Act of 1956 and the authorization of the Interstate System, a tremendous investment has been made in our Nation's highways. The Congress must now examine this Federal investment and alternative methods of maintaining this important system in our transportation network.

Approximately $70 billion has been expended for the construction of the Interstate System; 94 prcent of the authorized and designated 42,500-mile system is open to traffic. However, I am concerned about the cost to complete the remaining 6 percent. Estimates from the Federal Highway Administration indicate that the next interstate cost estimate could be $55 billion. This figure is considerably high when compared to the current construction cost of the Interstate System. The committee, through its Subcommittee on Transportation, must examine alternatives to complete this important highway system. Any method which will bring forth completion of our Interstate System by the end of this century must be carefully considered.

Another important problem facing the highway program is a lack of revenue in future years as the full effect of energy consideration both through reduced driving and better fuel economy is felt. With a $12 billion unobligated balance in the highway trust fund today, people ask how can there be a financing problem. The answer is simple. With construction prices having risen 300 percent since 1967, it is easy to see that highway construction costs are sharply up and we are building less for our money today.

It is for these reasons that I was pleased to cosponsor with the chairman of our subcommittee S. 2913, which proposes alternatives in both of the two crucial areas which I have mentioned. The proposals contained in this legislation are not necessarily the answer to our highway problems. They are a start and can bring forth discussion by which the committee can better refine its legislative proposals in the first session of the 97th Congress.

I look forward to hearing the testimony today from Federal and State witnesses and know that they will provide us with valuable and useful information on which to base future decisions on the direction of the Federal-aid highway program.

I thank you, Mr. Chairman.

Senator **Bentsen** Thank you very much, Mr. Chairman.

Mr. Chairman, your responsibilities as chairman of the full committee are certainly very broad in scope, but I know that you have always shown a particular interest in the work of the subcommittee involving the road system of this country, and that you have contributed much to the improvement of transportation in this country. Although you are very national in your viewpoint and in the scope of your responsibilities, you have certainly not neglected your home State of West Virginia. I have been there a number of times and I have come to the conclusion that the concrete never sets on West Virginia.

OPENING STATEMENT OF HON. ROBERT T. STAFFORD, U.S. SENATOR FROM THE STATE OF VERMONT

Mr. **Stafford** Thank you Mr Chairman. I am pleased to be able to participate this morning in the subcommittee's first hearing on S. 2913.

This Senator has participated in highway legislation for a number of years now through membership on the Environment and Public Works Committee. Up until now, the concern has been primarily what level of funding each Federal-aid highway category should be given and how much the State could reasonably spend.

Times have changed. During the past year we have seen highway needs competing with energy, defense, and other national priorities for the Federal dollar despite a designated user revenue trust fund. Because of factors such as inflation, we have seen the States able to spend more than the Federal Government can provide. In addition, our highway system appears to be deteriorating at an alarming rate.

The Senator from Vermont believes we have come to a critical crossroad. The Interstate System is virtually complete. The Federal Government can no longer provide sufficient funds to meet all the States' highway needs. The States are becoming more frustrated with Federal regulations and redtape. The system already in place is rapidly deteriorating. We are clearly at a point of reassessing the Federal, State, and local responsibilities for the highway program and reexamining the goals which originally determined Federal participation in the Federal-aid highway program.

In addition, the highway trust fund, once thought to be an inexhaustible source of revenues for financing the highway program, is in trouble. Revenues are declining due to gasohol tax exemptions, increased automobile gas efficiency, and decreased travel. The Federal gas tax has not been increased since 1959 and some increases of revenues may well be warranted. However, this Senator is not yet convinced that an indexed or ad valorem type of tax is the way to go in the future. It is important, at this early stage, to carefully examine a broad spectrum of financing options available from increasing revenues to the fund from an ad valorem kind of tax to terminating the trust fund and financing the highway program from general revenues.

It seems logical to this Senator that first the Federal role in the Federal-aid highway program must be determined, and then the method of financing the program can be decided. Once we have an idea of what and how much we want to buy, we will be better able to make a decision on what financing method is necessary.

During the next year difficult decisions will have to be made concerning the highway program—the Federal, State, local responsibility, defining interstate completion, attributing costs to highway users, and the method of financing the program. That decisionmaking process is only beginning and this Senator is not only encouraging but asking for full public participation in that process and is looking forward to hearing from those witnesses here today.

Senator BENTSEN. I would like to welcome this morning the Federal Highway Administrator, Mr. John Hassell. I think Mr. Hassell has done a fine job in the short time he has been there. We have rarely had a man take over that responsibility who already had as much information and knowledge of what had to be done as this Administrator.

We are pleased to have you with us.

STATEMENT OF JOHN HASSELL, ADMINISTRATOR, FEDERAL HIGHWAY, ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

Mr. **Hassell**. Thank you very much, Mr. Chairman.

It is a pleasure to be here to discuss the future of the Federal-aid highway program, and specifically legislation for 1981 and beyond.

I have a very lengthy statement this morning because we have attempted to present information for your consideration and the subcommittee's that is not readily available in other published sources. I would suggest in the interest of time and to permit the other witnesses that follow this morning a period of time for your questions and concerns that I might summarize some of the highlights of that statement, and then we could get on to some of your questions.

Senator **Bentsen**. It will be submitted for the record. (See p. 32.)

Mr. **Hassell**. As you pointed out during my confirmation hearing on June 3, this is an opportunity to apply creative thinking to the questions of what we need in the way of highway legislation for the future. As I noted at that hearing, we are all keenly aware of the changing demands placed on our resources—that is, inflation and scarce and expensive energy sources—and we are reassessing our approach to highway transportation. With highways carrying 85 percent of all passenger miles of travel and offering the flexibility of travel our mobile society demands, it is imperative that we continue to plan and provide a system which responds to these needs. We have prepared a paper, which has been submitted to this committee, which provides an overview of the program and revenue options concerning this highway legislation. We are planning further revisions of that based upon comments and concerns expressed to us. We will be coming forward with a second discussion paper which will add significantly to the discussion of revenue options, which should be completed later this month or early next month for a general discussion and consideration.

The 1981 legislative cycle will be a significant one in terms of highway finance and revenue policy for several reasons:

The trust fund expires in 1985, the revenues in 1984 that go into it. Projections and collections of highway and gas tax revenues are down, and State highway resources are, in many cases, in short supply. The highway authorizations for fiscal year 1982 and beyond need to assure program continuity and continuation of the work that this committee has started and put forward so carefully over the years. Inflation is reducing the highway dollar buying power. And preliminary findings from the highway cost allocation study and revenue study required by the Surface Transportation Act of 1978 will be submitted to Congress early in 1981, which will provide a basis for further consideration of alternate tax structures and revenue sources.

Our highway system is a key national resource. It enables personal mobility, commerce and economic development. The highway system represents part of our strategy to improve our national economic condition; therefore, it is imperative we preserve the integrity and efficiencies of the system through a continued Federal program of capital investment. I want to emphasize we must assure continued system performance by making necessary capital improvements to the highway system. If we defer such necessary improvements as we have in too many other sectors of our transportation system, we will find the basic system in such disrepair that it will be unable to perform in the areas of economic and social activity that are so vital to America's future.

As we enter the decade of the eighties, we are especially concerned with preserving the Interstate System in its high level of service and condition. Each year abour 2,000 miles reach the limit of pavement design, and 23 percent of the system is congested at peak periods.

Given the rapid increases in cost of highway construction, the system is almost entirely dependent upon Federal aid for rehabilitation. We have been soliciting a wide range of public and private views on the highway program. Departmental representatives have been consulting with local and State officials all over during the past few months. This explaining and listening process, I believe, has proven worthwhile in determining State and local needs, involving State and local interests in the Federal processes and giving us a better perspective of the differences and similarities of the country's regional needs.

The Federal-aid program must remain flexible for recipients of funds to provide for their own unique conditions and priorities. In dealing with future highway needs at the national level, it is essential we focus on and address the issues of Federal involvement and continued Federal role in the Federal-aid highway program.

The traditional goals have been providing for an Interstate Highway Network to serve the national defense and interstate travel; developing a system with the States that facilitates interstate commerce; helping to balance interjurisdictional transportation requirements; and improving highway safety. In conjunction with these traditional goals, we are also responding to other objectives, such as conserving energy, reducing inflation, minimizing adverse social, economic and environmental effects, and revitalizing our cities, industrial centers and declining population regions. Equal employment opportunity and greater minority business participation are also part of our highway program emphasis area.

To briefly review some of the major findings of our rapidly finalized version of the 1980 needs and performance study, let me briefly give a few citations of conditions on our major Federal-aid systems.

The primary system, of course, is the oldest Federal-aid system with some 271,000 miles. Over the last 10 years, the States have put a high level of emphasis and priority on the development and rehabilitation of this system, with nearly half of all State capital outlays, including interstate, going into the system. It is generally built to high standards and is in relatively good condition. However, some 60 percent of the pavement is now over 10 years old, meaning that in the near future we can expect significant portions of the system to need rehabilitation.

In addition, some 20 percent of the primary bridges have some deficiencies, unrelated to pavement geometry. We have seen that with the State priority that is placed on this program since 1970, the States have provided some 50 percent of the capital revenues needed for improvements of the primary system.

On the secondary system, we have some 390,000 miles of intracounty collector routes. This serves some 19 percent of all our rural traffic. It has had a decline in the pavement condition over the last 10 years, although its capacity exceeds needs over the next 10 years and its geometry has been improving. There is an indication that some 10 percent of the system is still not safe because of narrow lanes and design deficiencies, and we find that some 14 percent of that system is still unpaved.

On the urban system, the impact, of the Federal aid, this program has been very widely felt in our urban areas. While the roads are generally in good condition, peak period congestion is causing major problems in our urban and the new suburban reaches of our urban areas. Recent policies have been focusing on the need to better manage and integrate our urban system for highway and transit—public transportation needs. The urban program, of course, funds many programs besides highway construction, and several of the urban areas have been using this flexibility.

We are now in the third decade of construction of the Interstate System and, as noted earlier, over 90 percent of this system is now open to traffic, with over 96 percent of the system either open to traffic or under active construction. However, the cost estimate has gone up in recent years, and our estimates are that it could exceed the $50 to $60 billion level in the 1981 estimate due to inflation and changes in features of the Interstate System.

The recent acts of Congress have emphasized completion of the interstate—a goal that I think most all of us share. We need to close the gaps on the system very quickly. However, with some 2,000 miles of pavement reaching design age each year, it is becoming increasingly important that rehabilitation and reconstruction of the system be undertaken. We now find some 23 percent of the system is congested in the urban areas at peak periods, and 13 percent of the bridges on the system are deficient either as to the geometry or structural capacity, as of our latest study. We find that increasing resurfacing needs are necessary, with some 10 percent of the system now requiring immediate resurfacing in order to save and reclaim the investment we have made in the basic structure of the Interstate System.

The bridge program has received major emphasis as a result of the acts of this subcommittee. The 1978 act provided a significant increase in funding for the program, and the States as a whole have made use of this funding in a very gratifying manner that they have moved rapidly to use the funds Congress provided. However, we are still showing a significant number of deficient bridges on the system, and estimates of repair or rehabilitation range upwards of over $30 billion in order to complete the work that is identified in the 1979 bridge report.

I think this gives you an overview of some of the changes in conditions that have occurred over the last 10 years and where we basically stand with our highway system.

In conclusion, let me note in developing the 1981 legislation, it is going to be necessary to reexamine the program, its structure, the financing for it. We are facing a fundamental dilemma. Simply stated, there is an increasing number of programs and national objectives that are being pursued with ever-shrinking funds. We are working with four major directions that we are analyzing for considering the content of the proposed legislation. These conditions range from a continuation of current authorizations, which recognizes a continued reduction in real spending; maintaining the current program level in real dollar terms by increasing authorizations, which will require increased tax revenues to support it; providing for significant modification of the Federal role by phasing out or reducing Federal involvement and living within the trust fund revenues that are provided with the present tax structure; or enlarging and continuing to pursue the Federal responsibilities, and this entails a significant increase in highway funding resources beyond those that we are able to identify with the present taxing structure.

As I stated at my confirmation hearing, I believe that fulfilling America's transportation needs is a national priority because transportation is a facilitator of commerce and has become an integral component of our society. We at the Federal Highway Administration are pleased and anxious to work with this committee and Congress toward the development of legislation that meets our Nation's highway transportation needs. We look with anticipation and optimism toward this endeavor and appreciate your assistance with this program and the hearing that you are holding here today.

That concludes my remarks, Mr. Chairman. I would be pleased to answer any questions or provide any comments that the subcommittee would like.

Senator **Bentsen**. I would ask my colleagues on the first round of questions we limit it to 5 minutes; then we will come back and take another round, because I assume that would not be sufficient time.

When you talk about the number of bridges that are involved around the country that do not meet safety standards, what have you done to prioritize those that are most in distress, where you have the most danger? How have you gone about trying to work out some kind of a classification with a limited amount of Federal funds that we are devoting to that particular project?

Mr. **Hassell**. We have worked very closely with the States to develop a priority-setting process to identify the most deficient bridges, the ones with the greatest safety problems, and move to put our resources on solving those problems first.

To briefly describe that system, it is one that is working quite well, I believe. The bridge inspection program which was required by the 1970 act, I believe, was implemented with the States and has provided almost a 100-percent survey of all on-system bridges as to their structural and functional conditions. We then develop a numerical rating based upon that inventory. and we provide those ratings and a list of bridge deficiencies based upon that numerical rating to each State. They draw from the top down on that list in selecting their bridges for development under the formula portion of the program. We further, with the 1978 act, had the addition of the discretionary portion of the program for major structures that are very expensive and would require an accumulation of a large amount of funds on the part of the States.

We accept those applications, draw again from the bridge inventory list and prioritize it. We base our decisions for funding under the discretionary program upon the priority setting list and needs that Congress has identified to us so we can move to the most deficient bridges as early as possible.

Senator **Bentsen**. With the gasoline ad valorem tax as proposed under S. 2913, what kind of problems do you see coming with it as far as collection, administration, effect on revenues, economic interrelationships? What would you anticipate?

Mr. **Hassell**. We are presently working with the Treasury Department on a revenue study, and this is one of the options that is being identified. Let me briefly talk about some of the concerns that we have had expressed about the ad valorem tax. The revenue officials always are a little concerned by the collection mechanism. They aren't problems that necessarily can't be overcome, but there is some concern about the soundness and type of factor used to cause the inflation to be imputed back to the program. It would involve the adjustment of a rate at a twice yearly time frame, which some of the revenue technicians are concerned might cause some problems with collection. This is so because the refiner, who is the one who has to pay the tax now, would have to at least twice a year adjust his factors. Sometimes it is a little difficult to identify when a barrel is a product of refineries. The gasoline is held in tanks for periods of time, which involves other technicalities, none of which, from what I have seen, could not be overcome by carefully drawing the administrative procedures around the collection process.

It offers some very strong advantages, though, for the program. If our revenues are keeping pace with inflation, we can continue to have a real program level that accomplishes those things that Congress set out when we started at the beginning of the legislative cycle. We are now faced with a situation where our revenues are level to a downward trend. Therefore, each time you look at another package for the program you see a shrinking revenue base in real dollar terms and you aren't able to go to those priorities that have been set just a couple years ago.

Senator **Bentsen**. Mr. Hassell, if you were talking about 4 percent of the wholesale price, that would be approximately 4 cents today.

Mr. **Hassell**. That is correct.

Senator **Bentsen**. Do you think that is too much or too little?

Mr. **Hassell**. It might provide a starting place. Looking at the performance information that we have gathered concerning the Interstate System, the magnitude of the cost to complete estimate that is coming together now in the Federal Highway Administration, I would suggest that it would provide a starting point for near term. It would give us a program that for the out years would be more responsive to needs. But we do have, frankly, generating within the highway program area a build up of backlog needs that we are not now reaching. Therefore, I think that in the context of a multiyear bill, it would be quite acceptable, but we should be very careful in recognizing that we do have to look at a multiyear concept.

Senator **Bentsen**. That is not a particularly definitive stand at the moment.

Mr. **Hassell**. That is correct.

Senator **Bentsen**. Mr. Chairman, my time has expired.

Senator **Randolph**. Mr. Chairman, I have had the opportunity to speak; I would ask a question in a moment, but I would yield to Senator Burdick.

Senator **Bentsen**. Senator Burdick.

Senator **Burdick**. Mr. Administrator, I would like to thank you for your testimony this morning. You stated that some of these highways on the interstates are now 10 years old. Is that about the life expectancy that was projected originally? Do you know?

Mr. **Hassell**. The original design requirements that we worked with for the Interstate System was a 20-year life. When we talk of a 20-year life, in technical terms that is not 20 calendar years, it is 20 traffic-years. So we have to be careful to understand that the pavement life is based upon the traffic condition. With the interstate program now having come, so to speak, full cycle, we are now at the point where about 2,000 miles of that system reaches the 20-year traffic life each year. It doesn't mean all 42,000 miles was built 20 years ago, but it has received the traffic it was designed to take. It is now necessary to rehabilitate in order to preserve our investment in the base and subgrade we placed at considerable expense earlier.

Senator **Burdick**. Going back to the testimony at the time we instituted this program, didn't we contemplate these roads would last longer than they are?

Mr. **Hassell**. The concept of the 20-year design life is being pretty well fulfilled, because for every section that is reaching the end of its service period a little earlier, we have some sections where we are getting a little more than we had anticipated. So in looking at the overall Interstate System, we have concluded that we are very close to getting the 20 years that we anticipated when we designed it, and on the average our system is performing very close to where we expected.

Senator **Burdick**. How many thousand bridges were there?

Senator **Bentsen**. Thirty-three.

Senator **Burdick**. Did we anticipate that they would be in need of repair at this time?

Mr. **Hassell**. The magnitude of the bridge repair needs perhaps was not entirely correctly understood, and that is one area where we are getting some deficiencies earlier than expected. I was speaking earlier more of the pavements, which are balancing out very close on the average. But you are quite correct, the bridge situation on the Interstate System is requiring attention a little earlier than anticipated originally.

Senator **Burdick**. I travel occasionally—as a matter of fact, quite a bit. I hold my speedometer at 55 miles an hour, and everybody passes me. I am not fooling. They pass me, everybody. To what extent has the violation of the 55 mile speed limit contributed to more rapid deterioration of the roads?

Mr. **Hassell**. In a strictly engineering sense, the speed itself has very little to do with the deterioration that occurs. Now there is some impact on the condition due to what we call impact loading, which is the rate at which the wheel does turn over. But when you get up to the 55 mile an hour level, it is not significant. So the speed itself, although keeping to 55 contributes to energy conservation and to some very significant safety savings in lives and accident costs, it doesn't contribute materially to the deterioration itself.

Senator **Stafford**. Would the Senator yield?

Senator **Burdick**. Yes.

Senator **Stafford**. Doesn't weight have considerably more to do with the speed of deterioration than speed of a vehicle?

Mr. **Hassell**. That is correct, and the way it is distributed on the pavement section itself, if you had to pick out a major factor, the major one we have to look at.

Senator **Burdick**. But is it more correct to say it is weight and speed combined that does the damage to the roads?

Mr. **Hassell**. Once you get above 10 or 15 miles an hour, the speed itself becomes a fairly small factor in deterioration.

Senator **Randolph**. I don't want to interrupt, but do you mean that in connection with a truck that is going 55, 60, or 65 miles an hour, heavily loaded?

Mr. **Hassell**. When a truck moves forward down the road, its wheels produce what we call an impact loading. For bridges, it is used as a part of our computation for strength. For our pavements themselves, the impact loading of the wheel is absorbed primarily in the load that it is carrying. Now once you get to a structure of any size, like a bridge, the impact loading factor falls by the wayside because it becomes minimal in terms of our computations for the strength that is necessary just to support the bridge. It is a very technical consideration, and it changes according to the speed, and tends to have a less and less of a factor as you get faster and faster because you have already absorbed the impact loading itself.

Senator **Burdick**. Do you think anybody who sponsored this legislation originally believed that 56,700 bridges on the interstate would be in need of repair?

Mr. **Hassell**. I am not sure that any of us focused on that at the time that the legislation went forward. We are looking at the bridges and the pavement and the other performance factors related with the Interstate System because we did not at the earlier stages of the program look at the magnitude of maintenance responsibility that was being assumed in developing a system of this scale. Undoubtedly the benefits have been returned more than once over for the construction of it, but if we are going to continue to have it serve the kinds of benefits for the country that it is serving, we have to continue to refurbish it. It is like any work of man, it is temporary, it lasts for a time, and if we are going to continue to have benefit from it, we have to continue to maintain it and rehabilitate as time goes past, in order to continue to have its service.

Senator **Burdick**. Well, my time is up.

Senator **Bentsen**. Senator Stafford.

Senator **Stafford**. Thank you, Mr. Chairman.

Mr. Hassell, has the lowered use of gasoline that is resulting, I think, in less traffic on our interstate and primary and secondary system, has that resulted in a slower rate of deterioration of the surfaces of our various highways?

Mr. **Hassell**. We cannot detect a perceptible change in the rate of deterioration due to changes in traffic. The traffic and consumption of gasoline are benefactors. Consumption is down. However, traffic is not down half as much as consumption of gasoline, and that reflects the change to more energy efficient travel.

Senator **Stafford**. The lighter cars, on the other hand, would result in less wear on the highways themselves; would they not?

Mr. **Hassell**. There is some marginal benefit for them, but in terms of overall performance of pavement and bridge structure as a whole, you tend to lose that advantage because of the relative difference between our automobile traffic and truck traffic that the system serves.

Senator **Stafford**. I gather there has been no real perceptible drop in truck traffic on the various systems?

Mr. **Hassell**. On the contrary, it has been increased beyond the magnitudes anticipated.

Senator **Stafford**. I noticed a question about major rehabilitation of the system, particularly the interstate, and 20-year life. Could you tell us briefly what you consider to be a major rehabilitation of the highway?

Mr. **Hassell**. When we talk of major rehabilitation, we are using that in terms of providing for resurfacing of the highway due to the pavement's age, because of evaporation of the volatiles in asphalt, and fatigue loading that accumulates in portland cement pavement. We are speaking of redecking bridges and improving the deck structure that deteriorates with time because of the use of deicing salts for safety reasons and that type of thing. We are speaking of the major safety features being upgraded. We now have a better guardrail system than we did 25 years ago when we started. Those are the types of things we are speaking of when we talk of major rehabilitation. We are not speaking of the joint sealing and pothole repair and grass cutting; that is the responsibility of the States.

Senator **Stafford**. Let me ask you this for our information. Is there a considerable difference in the projected life to first rehabilitation between portland cement surface and bituminous asphalt surface, and if there is; what is it?

Mr. **Hassell**. I cannot give you any definitive numbers. If you would like, I will get you some averages based upon the 3–R program and provide that for the record.

Senator **Stafford**. That would be fine.

[The information requested follows:]

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20590

OFFICE OF THE ADMINISTRATOR

SEP 2 4 1980

IN REPLY REFER TO:
HCC-10

The Honorable Lloyd M. Bentsen
Chairman, Subcommittee on Transportation
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Bentsen:

This is in response to questions posed by your committee during the August 19 hearing on H.R. 2913. In addition, your letter of August 25 contained further written questions which we shall respond to as soon as possible.

One of the questions posed during the hearing relates to the service life and cost of portland cement concrete in comparison to bituminous asphalt for roadway surfaces. The service lives of bituminous and portland cement concrete will vary depending upon such factors as geographic location, traffic loading characteristics, and structural adequacy. Initial costs for different pavement-types will vary depending upon a number of factors such as traffic loading to be accommodated, underlying soil type, availability of aggregates, current component materials costs, and environmental conditions. Likewise, the life cycle cost, including maintenance, subsequent stages of construction, and rehabilitation costs are different. The Federal Highway Administration recommends that highway agencies perform a detailed engineering analysis of the prevailing conditions of each project and the pavement-type best serving the public interest be selected.

The other questions raised by Senator Randolph concerned section 204, the "coal roads" apportionment formula in S. 2720. While this bill has passed the Senate, it has not been considered by the full House. However, our planning staff has been reviewing section 204 on energy impacted rail and highway transportation in anticipation of its enactment.

The bill's language requires the Secretary of Transportation to take into account both rail and highway needs and establish by regulation a formula for apportionment of funds.

We will gladly furnish any other information which may be needed and are looking forward to further discussions in the development of the future highway programs.

Sincerely yours,

Alinda C Burke

Alinda C. Burke
Deputy Administrator

Mr. Hassell. There are a lot of factors that are variables. With our rigid pavements, our portland cement pavements, we tend to get longer life before the first rehabilitation is necessary. On the other hand, those States that have used high quality asphalt pavements are receiving roughly the same life cycle cost as portland cement, although resurfacing periods may be earlier. We get into a technology gap when we start dealing with portland cement pavements which causes increased costs that would not normally be associated with asphalt pavements. So they tend to balance off. What I am suggesting—let me give you some averages from the rehabilitation program as to what those costs are likely to be and the cycle that is involved.

Senator **Stafford.** Let me ask you one final question, Mr. Hassell, and that is this: Do you believe the redefinition of Interstate completion contained in S. 2918 would allow States to meet the 1983 and 1986 deadlines now in the law?

Mr. Hassell. I would appreciate it if I could reserve final judgment on that until we see what the data for the 1981 cost estimate looks like. I would like to do that because our previous cost estimates have not been as finely stratified as the 1981 cost estimates will be. We will be able then to look at the cost estimate and program that the States individually are moving forward on, and I could give you a much more definitive answer on that. It involves both the kinds of work, the funding level, as well as the types of projects that fall under those definitions. We don't have all the data yet.

Senator **Stafford.** May I ask as soon as you have those data, Mr. Hassell, to supply your judgement on those to the committee?

Mr. Hassell. I would be glad to.

Senator **Stafford.** Mr. Chairman, I have additional questions, but I know we are going to run into time constraints, so I will submit them for the record.

Senator **Bentsen.** Yes; Senator Chiles is here.

Mr. Chairman.

Senator **Randolph.** Yes; I will be very brief.

Mr. Administrator, you have been discussing the necessary capital investments to assure the continued system performance of our roads. Now, what is your estimate of the unmet rehabilitation needs of the Federal highway system or the Nation's highway system taken as a whole?

Mr. Hassell. We do not have yet a final number for the entire system, but we will have that as soon as we complete the performance study summary that we are developing right now. We do have a very firm handle on the Interstate System as a result of a study we conducted almost a year and a half ago, and we are estimating that somewhere between $2 to $3 billion a year over the next 10 years. A total of somewhere around $30 billion would be necessary to catch up with those different needs that are there on the books today and to catch up with the accumulation of some 2,000 miles a year that fall into that category. To give you a rough background, it is roughly $1 billion for the new needs per year during the first 5 years and about $2 billion a year to catch up with what has already occurred. So it is a very significant amount of backlog needs that are there now, and we cannot overlook the accumulation factor that is also adding to the problem.

Senator **Randolph**. Mr. Administrator, I joined with Senator Huddleston of Kentucky in sponsoring legislation referred to as the coal-haul roads program. Are you familiar with the passage of that legislation in the Senate? The companion bill is pending in the House. If that legislation becomes law, would you tell us how the funding would be distributed among the States?

Mr. **Hassell**. I am not very familiar with the exact distribution approach that is in that piece of legislation, I am sorry. We have done a lot of study on the coal-haul problem and identified many of the needs related to the highways themselves.

Senator **Randolph**. Then it is a problem.

Mr. **Hassell**. It is definitely a problem. We have identified some 34,000 miles of highways in 21 States that are used for coal hauling at this time and over the next few years estimates of needs range upward from $4 to $20 billion to provide for the kind of coal-haul capability that the studies are showing is necessary. So we are very interested and concerned about the problem. But I am afraid I can't comment directly from my knowledge on the distribution itself. I would be happy to provide that for the record.

Senator **Randolph**. One final question. If this is inappropriate, you needn't answer it. You are in the business of the development, maintenance, and strengthening of the highway system of this country. Over this system operate privately owned cars, limousines for hire, the buses that are constantly moving masses of people from one part of the country to another, and the important work of the trucking industry in moving the products that I have mentioned earlier to the consumer. Are you in favor of the continuance of a 55-mile-an hour speed limit?

Mr. **Hassell**. From all of the study data that I have seen on energy conservation and safety, I cannot but conclude that the 55-mile-an-hour speed limit is an item that is providing significant benefits to this country, and I, personally, favor the continuation of it and the type of enforcement programs that the States are developing. Congress has provided us with a set of standards to review the State compliance with the 55-mile-an-hour speed limit, and we are committed to working with the States to reach those standards.

Senator **Randolph**. Are the States meeting the obligation of the guidelines that you are setting down?

Mr. **Hassell**. As of the completion of the first year of data, we found that all States had met the standards that Congress set. At this time, we are working closely with several States that are having trouble meeting the standard for the coming year, and at this point I don't know that it is appropriate to conclude that any of them will fail to meet it, although several of them will require efforts that we are working with them to develop in order to get there.

Senator **Randolph**. I thank you, Mr. Hassell.

Senator **Bentsen**. Thank you very much, Mr. Chairman.

Thank you very much, Mr. Hassell. We are very pleased to have you here. I am sure there will be other questions that will be submitted to you in writing, and we would like to have your answers to them. Normally we take more time, but we have a long list of witnesses this morning, and we see Senator Lawton Chiles, of Florida, who is here, and we would like to have him come forward and present his testimony.

Mr. **Hassell**. Thank you, Mr. Chairman.

STATEMENT OF HON. LAWTON CHILES, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator CHILES. Thank you, Mr. Chairman.

I appreciate the opportunity to comment briefly on funding for the Federal-aid highway program.

Estimates of new construction costs are soaring. The maintenance demands are increasing as the Interstate System ages, and highway trust fund receipts are not keeping pace because of reduced gasoline consumption. All of these factors underscore the need for a careful look at our highway program and its funding mechanism. I compliment the subcommittee for its prompt attention to this matter and its work.

Senator BENTSEN. Senator Chiles, we are pleased to have you with us.

Senator CHILES. While over 90 percent of the Interstate System has been completed, there remain substantial gaps, and these gaps impair commerce and mean that highway transportation between some large population centers has not progressed beyond a 1950's level. As one of the Senators from the State with the most interstate gaps and uncompleted miles, I am naturally concerned about the completion of the system. Interstate Highway legislation was passed in 1978, and largely through the good work of this subcommittee, it recognized the need for new initiatives to complete essential gaps in the system and provided the mechanisms to do so.

My purpose in coming before you today is to ask and urge that interstate completion maintain its high priority status in any legislation considered by the subcommittee. I am concerned that as some of the remaining interstate mileage is finished, we'll see less interest in providing the necessary funds for the remaining sections.

Already this year we have seen a reduction in interstate construction money to Florida and other fast spending States due to the President's deferral of some $1 billion in highway obligations and a temporary change in the distribution formula. While these difficult budget times require that sacrifices be made, I think we all need to realize that long-term funding delays and drastic modifications or permanent changes in the allocation formula will unfairly delay completion of the system and ultimately increase its final cost.

Above all else, Florida is a growth State. Vast numbers of individuals and new businesses come to Florida every year. Congress recognized this growth potential and, since 1956, has authorized the construction of some 350 miles of new Interstate Highway in Florida. Much of this new mileage is designed to connect the large and still growing populations of Tampa/St. Petersburg and Miami. Unfortunately, funding has not kept pace and the additional mileage has meant other States have been able to complete their system sooner, leaving Florida to struggle for completion funds.

I would like to note, however, that Florida is contributing more to the highway trust fund than many other States and does receive substantially less than it contributes in return. From 1956 to 1978, Florida kicked in some $3.5 billion into the fund but has received back only about $2.5 billion. So we get approximately a 70-percent return on our dollar.

Senator **Bentsen**. Does that count all those places down in Key West?

Senator **Chiles**. Well, we need help with those bridges and the subcommittee was very responsive. Yes; they are included.

Senator **Bentsen**. We have been very pleased to participate in that.

Senator **Chiles**. Well, it has been very helpful to us. Without the subcommittee's assistance, I doubt if we would have any bridges to Key West. With all the salt water intrusion, it would probably be an island. That is exactly what it would be. We would be going by boat and not by road.

Senator **Randolph**. You mean the Cubans are using your roads?

Senator **Chiles**. Right now their return trips are by hijacking.

In conclusion, I would like to urge that during the consideration of S. 2913, the committee bear in mind the need to finish our national Interstate System and provide the funding that will allow States like Florida to complete their construction by the congressionally mandated deadlines. Congress has acknowledged the need to complete the system in a timely manner and I think now we have an obligation to proceed until this task is completed.

I do have a final concern Mr. Chairman, in perhaps the way you could read some of the bill's present definitions. I am concerned that some may be construed to exclude a good portion of our actual mileage because of toll facilities on the Alligator Alley and Sunshine Skyway Bridge sections of our system. While I recognize there needs to be a change and perhaps alternative funding methods for some of the safety devices, I would hope those definitions would not be construed to actually delete mileage that is a part of the Interstate System itself.

Thank you very much.

Senator **Bentsen**. Thank you, Senator.

Are there questions, Mr. Chairman?

Senator **Randolph**. I would wish to commend the Senator. Lawton Chiles has been conscious of this problem, an increasing one in his State, and has worked for what I believe are constructive efforts with this committee and in the Senate and Congress.

I would want to also say an equal understanding of the problems of the Florida highway programing and completion of the roads you have mentioned has been a commitment of Senator Stone, and that both of you have talked with many of us informally, and we are cognizant of the needs of that State as we are of all the States. We appreciate the presence of the two Senators from the State of Florida, which has many problems I would like to say and underscore them.

Senator **Bentsen**. But not in the Senate.

Senator **Chiles**. We thank you and again express our appreciation to you, Mr. Chairman, and to the subcommittee for the work you have done in this area. It is certainly of great consequence and benefit.

Senator **Bentsen**. Senator Burdick.

Senator **Burdick**. Senator Chiles, you are familiar with the fact the trust fund is melting down quite rapidly, for various reasons. I just wonder before you leave the witness table if you have any ideas how we should augment it?

Senator **Chiles**. I don't have any magic formula, I recognize that we have a real problem and that consumption is going down. On the one hand we're happy about this, but on the other hand the way the formula is now set we are getting fewer dollars in, and certainly the maintenance costs are going up. So it is a real problem to try to determine what we should do.

Senator **Bentsen**. Senator Stafford.

Senator **Stafford**. Mr. Chairman, I have no questions. I compliment our colleague on his appearance, and I am interested in what does happen in Florida roads because at some point in time they may become the winter retreat of the Senator from Vermont.

Senator **Bentsen**. Senator Chiles, we are very pleased to have you. Thank you for your statement.

Senator Stone, did you have a statement?

STATEMENT OF HON. RICHARD STONE, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator **Stone**. Thank you, Mr. Chairman and members of the committee. I will be very brief.

I would like to emphasize some aspects of what Senator Chiles has mentioned. It is a fact that we suffered a tragedy this year in the central part of our State in the accident which demolished a major part of the Sunshine Skyway Bridge. This is increasing the pressure of the need and necessity for the completion of the connectors in that area, and particularly the Tampa bypass. The bumper-to-bumper pressure this winter on that facility is going to be forcing more and more cars into the interstate facilities and U.S. road facilities. It is going to be very difficult and it is going to be more dangerous. We really need to continue the advancing of the Tampa bypass and other connectors that the lapsed fund and formulation by this committee in the 1978 bill made feasible. If you can do that, you will not only be saving energy, you will not only be saving the taxpayer the increased cost of construction later in the inflated costs that have always, by your own analysis, taken place in the past year. In addition to that, you will be saving lives and limbs. We really need it so badly.

In conclusion, and in answer to Senator Burdick's pertinent question, whatever it is that this committee formulates as a way for repairing the depletion in the highway funds this Senator would support this committee because it is an absolute need and necessity to complete our Interstate System as rapidly as possible. I know how difficult your job is, and you have my support in wrestling with these problems.

Senator **Randolph**. Mr. Chairman, may I just make one final comment.

Senator Stone, you have mentioned the bridge that was damaged to a very great degree. You did not speak of it as caused by a tanker. Am I correct?

Senator **Stone**. That is correct. A pilot ran into the pylon, demolished it.

Senator **Randolph**. A water-borne vehicle.

Senator **Stone**. Right.

Senator **Randolph**. The Highway Trust Fund is going to have to pay for this, $30 million.

Senator **Stone**. That is right. I think more like $50 million.

Senator **Randolph**. I am not sure of the amount, but we do have the provision in the trust fund, section 125, that does allow the Administrator certain leeway in emergency relief, and that would come within that provision in the law. So even though we are not able to do what we would like to do always in completing an interstate system, we did provide in the law something that is very important now to the State of Florida, $30 million, $40 million, $50 million.

Senator **Stone**. Quite true.

Senator **Randolph**. I think that should be noted.

Senator **Stone**. We appreciate the foresight and prudence of this committee in making it possible for us to restore that bridge. The point that I wanted to make, and I think still is valid, is because of the gap and use that we had appear, we have even more pressure on that bypass facility than we had when it was authorized and we began to go. So anything you can do for us will be appreciated.

Again, and I know I speak for Lawton, this has been an excellent committee for growth States in general and our State in particular, and we really do want to thank you for it. I know I will support you in any effort you make to try to repair the erosions of the funding designed to complete the tasks that you set. Thank you.

Senator **Bentsen**. Thank you, Senator Stone. We are delighted. We appreciate your support of this committee. We are pleased to work with you.

Senator **Stone**. Thank you.

Senator **Bentsen**. Mr. Chairman, if you would excuse me, and if you would chair, I have another meeting to attend.

Senator **Randolph** [presiding]. I understand that it will be necessary, Senator Stafford and all members of the committee, to be on the Senator floor at approximately 11.

Senator **Stafford**. That is correct.

Senator **Randolph**. When that time comes, we will have a recess, if that is agreeable. There is no other way we can carry on the hearing.

William Bulley is our next witness.

STATEMENT OF WILLIAM BULLEY, PRESIDENT, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, ACCOMPANIED BY FRANCIS B. FRANCOIS, EXECUTIVE DIRECTOR; RICHARD WARD, VICE PRESIDENT AND SECRETARY; AND MR. STAFFSET, SPECIAL ASSISTANT TO THE PRESIDENT

Senator **Randolph**. Mr. Bulley, if you will identify yourself and those sitting with you, you may proceed.

Mr. **Bulley**. Thank you, Mr. Chairman.

My name is William Bulley. I am secretary of the department of transportation for the State of Washington and president of the American Association of State Highway and Transportation Officials. I am pleased to appear here today on behalf of AASHTO to present our views on the need for new highway legislation at the Federal level. With me today are Mr. Dick Ward, director and chief engineer of the Oklahoma Highways and Transportation Department and vice president of AASHTO; and Mr. Francis Francois, who is executive director of AASHTO; and Mr. Staffset, who is special assistant to the president of AASHTO.

Mr. Chairman, we appreciate this opportunity to talk with you and your colleagues and the committee about the future of America's highways and our Federal-aid highways program. The introduction of S. 2913 and these hearings come at an important time in the development of an adequate, well-maintained transportation system for this Nation, and there are several major decisions which soon must be made. We in AASHTO feel it is essential there be a long-term funding program that will serve the highway needs of this Nation.

As we enter the 1980's, a number of factors are at work which must be accommodated if we are to have continued progress in meeting our energing needs. I would first like to review some of these factors with you, as we see them, then offer AASHTO's view on what might be done, and finally comment specifically on S. 2913.

Recognizing the time, I will try to be brief and get through in time for your recess.

During the 1970's, our Nation entered an era wherein the supply of petroleum is now recognized as limited, and the price of available petroleum products has greatly increased over what had prevailed in the past decades. These factors will affect our highway program in many ways in the 1980's.

At the State level, we have adopted energy conservation measures consistent with the national policy, and we have set our national goals for increasing the mileage per gallon to be obtained from our motor vehicles. Increasing numbers of Americans are turning to more fuel-efficient vehicles, in an effort to both reduce fuel usage and cope with rising fuel cost. The result of all this is that the gallonage total of motor fuel utilized by Americans is falling, along with the revenue received from gallonage-based fuel taxes.

In addition, the mix of lightweight and heavier vehicles on our highways has been altered. Since license fees are often based on vehicle weight, revenues within States that follow this principle suffer, as more smaller automobiles are registered.

In summary, as we enter the 1980's, our States have been facing stagnation and actual decline in these traditional sources of revenue to support our highway programs. However, highways continue to wear out, and new construction is still needed. But that is only one side of the problem.

On the other hand, the cost of asphalt has risen sharply, as has the cost of fuel for our trucks and equipment. Indeed, the budgets of our departments have been heavily hit across the board by inflation. Regulations have contributed greatly to the increased cost of transportation of products as well, and we would cover that in more detail at a later date if you so desire.

The combination of stagnating or declining revenues and increasing costs is placing State departments of highways and transportation in a difficult bind. The Federal highway trust fund is also affected by a stagnation in revenues. Clearly, a funding problem exists for our national highway programs.

It has been estimated that State highway departments have trimmed their spending plans for 1980 by some 15 percent, and discussions with leaders of these departments indicate the outlook for 1981 will be similar. This past year, our States in total earmarked some $2.5 billion for new construction on Federal aid highways, a 37-percent reduction from 1979. In addition, the States cut back by 45 percent on planned spending for new primary, secondary and urban road projects.

Incidentally, Mr. Chairman, I would suggest many States do not agree with the previous statement made by the Federal Highway Administrator that our primary system is in good condition. Many States disagree with that.

We have given you examples of various cutbacks of many States, but I will skip that because it is in the statement that we are providing to you, but certainly States are cutting back significantly.

On the other hand, several State legislatures have taken up the problem of financing our transportation needs, given today's conditions. A clear majority of the States have a fixed cents-per-gallon rate motor fuel tax, and as a result tax revenues are falling behind the sharp escalation in construction and maintenance costs. Eight States have increased their gasoline tax thus far this year, and nine States did so in 1978–79. We have attached a table to our statement listing the 50 States with the amount of their gasoline and diesel fuel tax and the date of their last increase.

In 1977, my State of Washington was the first to adopt a variable percentage gasoline tax, making us unique in this type of approach. We need to take a careful look at these new approaches to taxing motor fuel and, of course, S. 2913 addresses this issue. I would be pleased to respond to any questions you may have regarding the percentage tax in the State of Washington.

We believe that the States are now facing up to the need for greater revenues to support the vitally needed development and maintenance of our highway system, as is evidenced by the attached table of State actions on fuel taxes. Let me turn now to the Federal-aid highway program.

Recently, we have seen estimates that the revenues of the highway trust fund are not adequate to meet planned expenditures. This year, our States have had to contend with Federal-aid funding cutbacks that affected our ongoing highway construction programs, and we have seen reductions in the highway budget made in the effort to control Federal spending. At the same time, our Interstate System remains incomplete, and, according to the Federal Highway Administration, construction costs continue to escalate at a current rate of some 12.5 percent annually. Clearly, unless something is done by Congress the Federal-aid highways program we have all worked so hard to develop is in trouble, and cannot deliver what we have all agreed is needed.

To compound the problem, our highways are wearing out at an accelerating pace, and we thus must undertake a more vigorous maintenance and reconstruction effort.

Mr. Chairman, looking at today's situation and the future, AASHTO recently convened a special task force on the future of highway legislation. It was given the charge to develop recommendations for future Federal aid highways legislation, taking into account our energy situation, inflation, and the needs of the existing highway system. A copy of the task force's report is attached, Mr. Chairman, and it includes 17 specific policy recommendations. I am pleased to report all 17 of those recommendations were approved by more than two-thirds of all the member States of AASHTO.

I would like to share with you, if I might, a summary of those recommendations in terms of their significance:

The Interstate Highway System should be completed at the earliest practicable time.

The Interstate 3–R program should be continued, and expanded to include reconstruction.

There should be increased funding for the Interstate Highway System, and the 4–R program.

The Interstate Highway System and the primary system should each remain separate and distinct from other systems, and there should be no substantial increase or decrease in the present Federal-aid highway system.

The Federal Highway Trust Fund should continue indefinitely and remain exclusively dedicated to highway and related public transportation facilities.

The Federal Highway Trust Fund must receive additional revenue, coming from new sources of revenue and increased levels of reciepts from present sources, with the additional revenues being directed toward increased funding of current programs.

The Federal Highway Trust Fund should continue to provide basic support for highway and related programs through categorical cost reimbursement grants to the States, with the categories being reduced to interstate, primary, secondary, urban, safety and bridge replacement, with simplified provisions for transfers among categories, and retention of minimum apportionments for each category.

A careful study is needed to determine more equitable apportionment formulas, which may include new elements such as highway needs in relation to levels of service, Federal-aid mileage, population, area and relative contribution to the Federal highway trust fund. However, the concept of minimum apportionment should be retained.

The Federal motor fuel tax rate should be adjusted annually in accordance with the percentage that the rate of gasoline tax per gallon bears to the average national wholesale price of motor fuel, less all taxes.

Mr. Chariman, I emphasize again that these policies represent a consensus of all the member States of AASHTO—the 50 States, the District of Columbia and Puerto Rico. We recognize that all States are not necessarily in full agreement with each of the 17 policies adopted in our ballot, and that certain States face special conditions which Federal legislation should accommodate. We expect our members will make known to you and the Congress here they have individual problems, and we hope that legislative answers can be found to meet their special situations, within the general framework of AASHTO's adopted policies.

Now, Mr. Chairman, given our understanding of the problems facing our highway program and the adopted policies I have just set forth, how do we view S. 2913?

Generally, we find that S. 2913 gives strong support to several of our stated policies, especially the need to continue the Federal Highway Trust Fund, further completion of the Interstate Highway System, increase the funding for the Interstate 3–R program and add reconstruction as an acceptable activity, and provide new funding for the Federal-aid highway program. The bill also commendably recognizes the problem with our current fixed rate per gallon motor fuel tax, and proposes the substitution of a new tax for the present one.

We believe that S. 2913 is a good starting point, one that can lead to legislation in the next Congress which will adequately address the highway transportation problems before us.

Let me also mention a few of our concerns about some of the provisions of the bill.

The first concern is that while S. 2913 provides increased funding for the interstate highway program, in our judgment funding will still be woefully short to complete construction of the Interstate System. We are gratified at increased funding for the primary system and bridge replacement and rehabilitation, and especially the larger authorization for the Interstate 4–R program in fiscal year 1983. But we are disappointed that the already admittedly inadequate authorization level of $3 billion for interstate construction will be reduced, not increased, in fiscal year 1982. The legislation would not provide the means of completing the remaining high cost interstate sections, of which there are several throughout the Nation.

The Federal Highway Administration published a paper titled "1981 Federal Highway Legislation: Program and Revenue Options, Discussion Paper No. 1," which Mr. Hassell discussed earlier this morning. In that paper, FHWA suggested four options for completing the Interstate System, ranging in cost from $26.9 billion to $50.75 billion. I will not discuss the merits of the options at this time, but the cost estimates provide a good indication of the size of the task before us. Spending at a $3 billion annual rate, and faced with a 12.5 percent annual cost increases, we suggest that completion of the vitally needed final links of the Interstate System becomes at best very problematical. We feel the authorization should be increased a substantial amount, and we hope it will not be decreased. In the past, AASHTO has proposed an annual funding level of at least $5 billion, and we urge your consideration of that level for S. 2913. We realize this is a time when policy is looking toward reduced Federal spending, but we feel that such levels are necessary if the interstate is to be completed by 1990.

With respect to the increase proposed for the Interstate 4–R program, we welcome it as a move in the direction of meeting the needs. But when we add reconstruction to the old Interstate 3–R program, an action which, as noted, AASHTO supports, we also increase the amount of money necessary for the program Thus, we believe this authorization should also be larger.

The proposed increased funding for the bridge replacement and emergency relief programs is clearly timely. The bridge problems of our Nation have already been defined and more fiscal help is clearly necessary, and we certainly support the increased funding for the bridge replacement program.

Senator **Randolph.** Mr. Bulley, we are going to have to go for a rollcall quickly. I just wanted to ask two questions when you have completed.

Mr. **Bulley.** We support the increase in the emergency relief program, Mr. Chairman. Because of inflation, we also support the

4-percent gasoline tax in lieu of the 4 cent tax. In our opinion, it moves in the direction of stated policy of AASHTO.

In terms of collection, I might say that I would be pleased to provide the procedures that have been adopted by the State of Washington. That question was raised earlier in which there have been problems.

With that, Mr. Chairman, I believe the rest of the testimony we have provided is outlined. We have some concerns about the need for considering the taxing in the future of alternative fuel.

We are ready for questions, Mr. Chairman.

Senator **Randolph**. President Bulley, we have one light on that indicates to my colleagues that a rollcall has begun, and I would like to ask these two questions before we recess. Then we will have ot determine how we can come back. There are certain commitments that I have.

Senator **Stafford**. Mr. Chairman, I can come back until about 10 of 12.

Senator **Randolph**. That would be fine. Thank you, Senator Stafford.

In those States, President Bulley, among the Interstate System that are incomplete, what is your estimate of the time that is needed to complete those sections? If we had improved funding, how much quicker could that work be done, in your opinion? Perhaps there are other delays that would be caused by certain deficiencies, and what can be done to eliminate those delays?

Mr. **Bulley**. The first question, I believe all States are working toward ultimate completion of the interstate by 1990. I know in our State it will be questionable if we can do that because we have large sections remaining that unless there are discretionary funds made available, in addition to our regular apportionment, is simply cannot be accomplished. The use of additional funding, the possible use of discretionary funds or other methods that will allow us to move ahead with the larger expenditures at a faster rate than our regular apportionment is absolutely essential if we are going to complete by 1990, otherwise we will not make it.

Senator **Randolph**. President Bulley, you mentioned the State of Washington, and you have indicated the failure time wise to be able to complete the program there. Do you fell that we must give some assurance to the States that the significant, the necessary parts of the Interstate System that are unfinished, that they be completed, and also I am not sure how we can give this assurance and in what form, but do you think that is necessary that we do that?

Mr. **Bulley**. Mr. Chairman, not only on behalf of the ability to proceed and knowing that the essential interstate gaps are going to be complete, I think that is essential, but also to provide assurance to the State legislatures as they provide the matching funds for the program, I think it is essential there be a commitment made for completion of interstate gaps, yes.

Senator **Randolph**. We will recess to go and vote.

[Brief recess.]

Senator **Stafford** [presiding]. The Subcommittee on Transportation will come to order.

The Senator from Vermont as acting chairman of the subcommittee wants to thank Mr. Bulley and his associates for their presence here and their assistance to the subcommittee and ultimately to the full committee. In my view of our unfortunate time constraints this morning, questions which members of the subcommittee have for you will be submitted in writing, and we will ask you at your earliest convenience to supply your answers.

Mr. BULLEY. We certainly will be glad to do that, and we appreciate the opportunity to be here.

Senator STAFFORD. We thank you again very much for your presence here.

The Chair would now ask the panel, Mr. William Rose, secretary, Florida Department of Transportation, Mr. Thomas Moreland, commissioner, Georgia Department of Transportation, and Mr. Ronald Crisman, secretary, Vermont Agency of Transportation, if they would come forward.

STATEMENTS OF WILLIAM N. ROSE, SECRETARY, FLORIDA DEPARTMENT OF TRANSPORTATION; THOMAS MORELAND, COMMISSIONER, GEORGIA DEPARTMENT OF TRANSPORTATION; AND RONALD CRISMAN, SECRETARY, VERMONT AGENCY OF TRANSPORTATION

Senator STAFFORD. The Chair extends a hearty welcome to all three of you. We are very appreciative of your assistance in this early aspect of our examining the future highway legislation to come out of this committee. Unfortunately, we are faced with a severe time constraint, so questions will probably be submitted in writing for responses in writing, and I would ask that each of you limit your presentation if you can to 5 or 6 minutes. We will put your entire statements in the record. (See pp. 89–121.)

Senator STAFFORD. The Chair will leave to you the precedence in who speaks first, second and third.

Mr. ROSE. I am Bill Rose. I am Secretary of Transportation for the State of Florida.

I will make my comments brief, and I have sufficient copies of my testimony to pass out to the committee.

I was pleased that Senator Chiles and Senator Stone were here this morning, and essentially they presented to the committee Florida's position concerning highway legislation, and particularly highway funding. I have a few comments to make and will be available for any questions that you might have.

Obviously, Florida's No. 1 transportation problem is inadequate funding, and this funding problem exists not only with our State funding but also with the Federal funding we are addressing today. We are preparing to address the State funding issue, and Governor Graham and the State legislature are developing proposals that I am confident will resolve the funding at the State level.

However, in order to complete our highway work and to maintain and preserve the system that we already have in place, it is essential that we have a Federal program that complements the State funding provisions.

We have taken some drastic action over the past several months in order to keep our transportation funds solvent. We have had to cancel contract lettings, and there were several months this spring when we did not have any lettings. We have cut back programs and have had to slide schedules and have had staff reductions in order to keep our program in the black.

Florida is particularly hard hit. Last year our construction costs ran about 23 percent over the year before. So we are faced with the same problems that have been discussed by other witnesses before you today.

However, I need to point out that we share with several States the problem that we don't have stalled growth patterns in our State. Our State is continuing to grow. Our population is expanding, and as such we need to accommodate the growing population with whatever transportation facilities are necessary for their needs and for the business and economic development that supports that population.

Now, in the 1978 Surface Transportation Act enacted by Congress, we had a deadline to get all of our interstate work under contract by 1986. Our engineering production schedule anticipates that deadline. We are on schedule and we fully expect to have work ready for contract by the 1986 deadline. The problem in meeting that deadline essentially is funding. I have detailed the funding situation in my testimony that I am passing out, so I won't go through that detail now. I will sum it up by simply saying it will cost about $2.3 billion to complete the Interstate System in the State of Florida. Based on current funding mechanisms, we anticipate receiving between now and 1986 about $800 million.

I brought a map with me today, and, Bill, if you will hold that up, you will see several red sections. One is the Tampa bypass, Senator, this section here, the Sunshine Skyway, the lower part of I–75 at Naples across to Miami, and the missing link on I–95 on the Florida east coast. Those projects I have depicted on the map are the projects that we had to pull out of our work program for funding purposes. We are anxious to develop some mechanism to restore them, and I can only amen the statement that Bill Bulley made a little earlier in that there needs to be a commitment in the Federal legislation that we will complete the interstate so that I can develop work programs and provide for the State funding to match that Federal aid that will be forthcoming from the system. That is very important and we support that position.

There are a number of other comments in our testimony. They have been touched on by previous people that have appeared before you, so I will not dwell on them. They are in the testimony that I am handing out.

I am concerned that any funding for rehabilitation and maintenance of the Interstate System, any increase in that funding, not be at the expense of the completion of the gaps in the Interstate System. I think it is very important that those two issues be addressed, but that they be addressed in such a manner that we don't penalize States that still have work to complete.

I must point out to the committee that I have had some serious repercussions in Florida because of these cutbacks that I just presented to you a little earlier. Florida has received, as I think Senator Chiles mentioned this morning, about $2.5 billion and has contributed about $3.5 billion to the Federal trust fund. About 70 percent of the funds that we have contributed have come back to us. We have explained the concept of developing a national Interstate System and our citizens have accepted that fact. But I am having difficulty in explaining to them why there are shortfalls now, why there is even discussion that the interstate program might be cut short when we are so near to the completion of that system. I don't think we complain so much about the contribution to the national interstate network, but we certainly are anxious to see that the criteria and the schedules and mechanisms for completing the interstate are kept in place, and that that program can continue.

We support the general provisions of the bill. We support the bridge program authorizations as set forth in the bill under discussion, and certainly support the carpool and vanpooling provisions in the bill, a very important part of our transportation program. The increase in obligating authority is important, and we support that.

I have one concern, and that is I wonder if the 4-percent sales tax on the wholesale price of motor fuel is sufficient to provide the revenue we are talking about. I know we have done some analysis in Florida, and it seems that that might not provide the funding that is necessary, and I would withhold judgment until we can see the figures and projections of just what funds might be raised through the tax. But I think we should take a hard look at that point.

The other details of my testimony are in the written material I am handing out, and I think that concludes the primary points I wanted to discuss with you today.

Senator **Stafford**. Thank you very much, Mr. Rose. I think I will editorialize by saying recently I drove from Vermont to Washington, and for the first time that I can remember most everybody seemed to be going under 60 miles an hour, even the trucks, which is a considerable improvement over things just a year ago. So I would like to get that in the record.

Mr. **Rose**. Senator, I would like to make one point. I think that is right, and I think our statistics in Florida show that people who are driving to Florida are driving slower. It is interesting that the traffic volume of people crossing the State lines—coming from Georgia, Mr. Moreland—but the number of vehicles has stayed up reasonably close to what they have been in the past, but gasoline consumption is way down. But people are driving slower.

STATEMENT OF THOMAS MORELAND

Mr. **Moreland**. I am Tom Moreland, from Georgia and I will hit the highlights of my testimony, which has been submitted.

I, too, am pleased with the framework of the act. I was pleased with the emphasis of the 1978 act, and I am pleased that we are getting it out early. My comments I guess will mostly be those things that I am worried about that occur at our public hearings.

The treatment of primary and secondary highways, a modest increase will be well received. I will note the biggest congestion problem besides urban freeways are the primary extensions into urban areas, and that might need some attention about funding.

On the bridge replacement program, I think it is a national problem that justifies a separate program. It is not because that we have not been treated equitably, but I have some concerns about continuing what obviously is going to be a long-range and expensive based on a cost-to-complete basis. They have not worked in the past. It did not work with the Interstate System. It did if all States finished at the same time. They are based on somebody else's estimate of cost. I note in the present cost for various States the per square foot cost for bridges ranges from $72 to $95. The cost-to-complete systems, where it is efficient transportation facilities such as this, may tend to reward those States or units of government which have not completed the facility they should. I have some concern about continuing that program on a cost-to-complete basis. If not, we should consider some distribution formula similar to primary, secondary.

I also wonder if it would not be appropriate to allow State access to special category bridge funds once they have spent their regular apportionments funds rather than making them seek a $10 million bridge replacement fund. It could lead to non-cost-effective measures.

I support the 3-R program. I might note we have not slacked in Georgia our responsibility for rehabilitation by the State. A total of $74 million has been put into rehabilitation; $56 million has been State money.

My main worry is as it relates to interstate cost estimates and removal of certain elements of upgrading from that system. In Georgia, we built the urban Interstate System first, principally the Atlanta metropolitan area. We already had a plan for freeways and we folded that into the interstate. We were limited by the guidelines of the Bureau of Public Roads by lanes. They went by not some of the sophisticated methods of today, but a simple rule the population of a city would allow you to measure a certain number of lanes. They changed downstream in 1965, but at that time we were through with the Atlanta freeway system. We were limited to generally four lanes. That is inadequate. We need eight lanes generally. We are in the process of rebuilding that system now, and if these elements are removed from interstate cost estimates, it will simply decimate and almost terminate that program. So we urge some serious thought about that. From 1956 to the present, any time an element has been accepted into an interstate cost estimate, it has been accepted as a commitment to construction. To my knowledge, this will be the first time to remove anything from the cost estimate. If we are to find an end to the Interstate System, it might be better to consider first halting the addition of any new element to it. Your measure in 1978 to stop additional mileage worked well. We have been a donor State also. We continue to be.

We support change to an ad valorem tax. I think 4 percent is not enough. I know we will have to do with the art of the possible, but I believe additional revenue will be needed.

Senator STAFFORD. Let me interject to ask what you think might be enough?

Mr. MORELAND. Well, we are wrestling with the State funding problem. I don't have the same degree of confidence that perhaps Bill Rose does. I would think in the range of 6 percent.

Senator STAFFORD. Six percent.

Mr. MORELAND. Yes.

Senator **Stafford**. Actually, application now will decrease the payment by the heavy vehicles. That disturbs me. I think that is inequitable, but I think that is the range I would propose.

Thank you very much.

I am sure you will forgive me if I take a little parochial pride in having the secretary of transportation from my home State with us. Ron, we are glad you are here.

STATEMENT OF RON CRISMAN

Mr. **Crisman**. Thank you, Mr. Chairman. I am Ron Crisman, secretary of transportation for Vermont. I will hit the high points of our concerns. I have submitted both the commentary and a nuts and bolts statement.

Small States, like large States, have the same problems. The only differences is scale and scope. We, like everybody else, have financial problems. Our gas consumption is down 12 percent and our road mileage is higher. We have that kind of pressure on us. It is important that this bill be given the total exposure it needs because it is the beginning of a conversation for a long program time period. We would hope that it would be made a 4-year bill rather than a 1-year bill, because the whole process of building a transportation system is a long, time-consuming process within which a 1-year approach does not lend itself to any kind of stability for completion.

We feel it is important we finish the Interstate System as best we can as soon as we can. We also feel it is very important we keep the transferability which was built into the 1978 act of interstate funds into other systems. This is very important for States like Vermont with very small primary, secondary and urban allocations, where 1 year's money won't even build a quarter of a project, that the availability of interstate moneys at the completion of our segments of the interstate are maintained. We built a 10-year construction program, approved by the Govenor and the legislature, and funded for 10 years on that assumption. We neglected our primary and secondary systems for 25 years to build the Interstate System. We had to construct connector highways and interchanges to get to the interstate, and all our primary and secondary money went into those roads.

Many communities have been without improvements inroads for three decades simply waiting for completion of the interstate. To deny them now a chance to restore these linkages from their extremely decrepit situation to a positive one I think would be unthinkable.

We also should look at highway safety in terms of primary and secondary roads versus interstate. We have had our worst year ever as far as fatal accidents. We have had one fatal accident on the interstate and that was where the man had a stroke first. Every other one was on a road that should have been improved with reconstruction and resurfacing some years back. We think it is important that we remember that fact.

We applaud the elimination of some of the category expenditures. We should simplify and continue that trend, but we must have the flexibility that has to follow block grants. Let each State do as it needs to do; maintain grant and program flexibility so long as it meets the objectives. That is extremely critical.

We also support the bridge program and feel there ought to be a national availability for interstate or interregional bridges and unusual situations.

We also note the change in some of the methods of computing allocation. We think besides traffic consideration. climatic conditions and subsurface soils are important. The middle of the country has subsurface soil factors that may deteriorate from a pounding in traffic, and some Northern States with extreme cold and some Southern States with hot weather are undergoing climatic changes that have an effect on traffic wear.

We support a ceiling of 80,000 pounds as a Federal limit, but do not force States with roads that will not take more than 80,000 pounds into a situation of compliance with a Federal restriction. Our roads will deteriorate at a faster rate at higher weight limits.

I think the delay again in the primary system has the most direct relationship to highway safety, and that ought to be considered.

One of the major problems of this decade has been the failure of Federal agencies to consult with Governors and State agencies, AASHTO's and so forth in the construction and promogations of rules and regulations. In the funding of the transportation system of the country, the States put approximately twice as much money as the Federal Government in the entire system. To not be consulted in the formulation of a rule or regulation which forces upon us taxes or expenditures creates problems we really don't need, and neither does the country. We also should look at the rules and regulations now being included in the act, such as not complying with billboard restrictions, not enforcing even weight limits, not enforcing 55 miles an hour, dozens of restrictions which have added to the cost and, in many cases, have not contributed to the solution of environmental, energy, and social problems. We feel strongly you deal with these problems where the problem is and not through some backward mechanism of transportation funding.

I guess that pretty well summarizes my testimony.

Senator STAFFORD. For the subcommittee and the full committee, I thank all of you for being here and for your assistance to us in considering this legislation. We will submit questions that occur to members of the subcommittee to you in writing, if that is agreeable, for responses within your early convenience for the record.

With that, the Chair will announce that the next meeting of this subcommittee will be on September 9 at 9:30 a.m., in this room.

With that, the Chair will recess the meeting of the subcommittee until that time.

[Whereupon, at 11:45 a.m., the subcommittee recessed, to reconvene subject to call of the Chair.]

[Statements supplied for the record and the bill S. 2913 follow:]

TESTIMONY OF
JOHN S. HASSELL, JR.,
ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION
BEFORE THE SENATE SUBCOMMITTEE ON TRANSPORTATION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

AUGUST 19, 1980

Good morning Mr. Chairman; it is a pleasure to be here today to discuss the future of the Federal-aid highway program and specifically legislation for 1981 and beyond.

As you pointed out during my confirmation hearing on June 3rd, before the Committee on Environment and Public Works, this is an opportunity to apply creative thinking to the question of what we need in the way of highway legislation.

As I noted at that hearing, we are all keenly aware of the changing demands placed on our resources—inflation and scarce and expensive energy sources—and we are reassessing our approach to highway transportation. We also believe our highway program is playing a vital role in meeting the Nation's efforts to conserve energy, as well as to revitalizing our urban centers, contributing to better air

quality, and providing economic development opportunities. With highways carrying 85 percent of all passenger miles of travel and offering the flexibility of travel our mobile society demands, it is imperative that we continue to plan and provide a system which responds to these needs. To begin this important reassessment process, we have been consulting with a wide range of State and local officials and a variety of public interest groups to get a better grip on the problems they face, and to solicit their recommendations for a more effective Federal-aid highway program. We have prepared a paper which provides an overview of the program and revenue options concerning this highway legislation. This paper has already been submitted to the Committee in preparation for today's hearing. I intend today to highlight and emphasize some of the main points and discuss some of the issues involved.

The 1981 legislative cycle will be a significant one in terms of highway finance and revenue policy for several reasons:

- The Trust Fund expires in 1985;
- Projections of highway revenues in general, and Federal gas tax revenues in particular, are down;

- Highway authorizations for FY 82 need to be reassessed in light of the changing emphasis toward preserving the system;
- Inflation is reducing the buying power of the highway dollar; and
- Preliminary findings from the Section 506 Highway Cost Allocation Study will be submitted to the Congress in early 1981, and will provide a basis for further consideration of alternate tax structures and revenue sources.

Before I discuss specific highway program issues and options, I would like to set the framework for the discussion by placing the Nation's highway system in perspective.

Our highway transportation system—and the personal mobility, commerce, and economic development it facilitates—is a key national resource. While we all recognize its importance as users, perhaps we lose sight, sometimes, of its economic and social contribution as part of a national multi-modal transportation system. The system serves us in many areas of industrial growth and development, by providing for efficient, low-cost freight transfer and commerce. As such, it represents, along with our rail, air and water systems, part of the strategy to improve our national economic condition, not only through serving commerce, but also through its impact on economic activity and job production. Thus preserving the physical integrity and efficiency of the system—especially where it facilitates needed commerce—is a key aspect of our rationale for a continued Federal program of capital investment.

Of course, the system and its performance also play a part in our attempt to meet other national goals, including energy self sufficiency and inflation control. I want to emphasize the point that we must assure continued system performance by making necessary capital improvements to the highway system. If we defer such improvements as we have historically in other sectors of our transportation system we will find the basic system in such disrepair that it will be unable to adequately perform in any of the areas of economic and social activity we find important for the future.

Mr. Chairman, the Surface Transportation Assistance Act of 1978, the most recent major highway legislation, recognized the natural interaction of transportation systems which serve a Nation on the move. Combining highway, safety, and public transit titles in a single enactment, it is serving the public well. The Act provides for new and expanded services as the demand for greater and more efficient mobility continues. Mr. Chairman, as you have said, "(it) recognized the need for more expeditious completion of the Interstate System and for increased emphasis on rehabilitation and preservation of the existing highway networks, including a new impetus for bridge replacement and rehabilitation." (126 Cong. Rec 9148) I agree with you, that we must get on with the work of completing the Interstate and close the gaps in areas that are required for the greatest efficiency.

At this time I would like to briefly describe the current conditions and trends in performance of the components of the Federal-aid highway system as background for the development of our future program.

The Primary System, the oldest Federal-aid system connecting our major cities, includes 271,000 miles, with 90 percent located in rural areas. Over the last 10 years the States have put a high priority on its development, with nearly half of all State capital outlays (excluding the Interstate System) going into this system. It is generally built to high standards, and is in relatively good condition. However, we should note that there has been a decrease in the percent of capital invested over the 10 years and 60 percent of the pavement is now over 10 years old. There are many miles throughout the country with significant deficiencies. A portion of the urban segment of the system daily experiences severe congestion during peak periods. Improvements in design have been incorporated to respond to safety needs. In addition, 20 percent of the Primary System bridges have some deficiency, unrelated to pavement geometry. Primary programs must compete with all other on-system and off-system needs for the presently hard-pressed State dollar. A realistic analysis must conclude that the primary program and/or State-only program is barely meeting the growing rehabilitation needs of the Primary System and do not offer a feasible source of adequate funds for other needs such as Interstate 3R.

Any change in the Federal-aid Primary program will naturally have an impact on State priorities, because the combined Federal and State portion is now three-fourths of the capital program. In 1970, State-only funding provided 50 percent of capital improvement revenues; today 32 percent is State-only funding. It is difficult to predict how the States would respond to significant changes in Federal-aid levels in the future. There is no guarantee that an increase in Federal money would be met by corresponding increases by the States. Conversely, if the Federal program stabilizes, and in constant dollar terms declines over time, it is possible that State priorities would cause State funding to increase to compensate for the loss. The determining factor is the level of performance the individual States set for their State highways.

Unlike the Interstate System, which has uniform design and operating standards, the Primary System service level varies, depending on individual State preferences in the range of AASHTO standards and their ability to fund improvements to the highway network. Unless the Federal Government intends to set minimum acceptable levels of performance for the Primary System and then fund some portion of the cost to maintain these levels, the Federal role in the Primary System capital improvement program will be to assist the States by providing a base funding level. Each State could then determine how much or how little should be added to the base to meet their own priorities.

The Secondary System consists of 390,000 miles of intra-county collector routes. It serves 19 percent of all rural traffic and has had a decline in pavement condition over the last 10 years. Its capacity exceeds demand through 1990 and its geometrics have been improving. These routes are not intended to form an interconnected network of highways; instead they are collectors for travel onto and off the State arterial network, and in many instances still provide a link in the traditional farm-to-market route.

The System is providing adequate service for its comparatively low volume of traffic. However, 14 percent of the mileage is still unpaved, and the most common bridge deficiency is related to deck width. About 10 percent of the System is not generally safe because of narrow lanes and design deficiencies. The projected traffic increases on the System will have little effect, except for areas where abandoned rail lines cause an unexpected strain.

With present trends continuing, by 1995, 90 percent of the Secondary mileage will have incurred some level of deficiency. However, from an operational standpoint the impact of the Secondary routes on a nationwide highway network is marginal. The original Federal purpose of the program has certainly been accomplished as now about 86 percent of the routes are paved. Continued Federal involvement in this program might no longer be justified on the basis of system performance as to general safety needs and the movement of selected goods and, therefore, should probably be reassessed.

The Urban System, established as a separate Federal-aid program in 1970, is unique with a broad character encompassing any locally designated urban arterial or collector route not on another system. The System's funds are also eligible for use to fund mass transit equipment. While in generally good condition, peak period congestion is increasing and much recent policy focuses on the need for better management and integration of the highway and transit systems.

The need is for more efficient use of the existing system with emphasis on priorities atuned to our National urban policy. These include energy conservation, improving urban planning and management, with involvement of local governments, urban conservation, and minimizing adverse impacts on society and the environment. As this Subcommittee heard at the July 22 hearing on our Auto-Use Management proposal, there are many low cost Transportation Systems Management projects that can add appreciably to our energy savings. These include ridesharing programs, bicycle and pedestrian improvements, public education stressing efficient driving habits, among others. More emphasis on these kinds of programs, involving shared responsibilities with mass transit officials, will precipitate the actions needed to solve some of our urban problems of the 1980's.

Now in its third decade of construction, 96 percent of the Interstate System's designated 42,500 miles is open to traffic or under active construction. It is serving well its intended purpose and has provided the transportation link which has brought us together as a Country of truly interrelated States. However, the Interstate Cost Estimate has been escalating, and may exceed $50 billion in the 1981 estimate. The cost to complete the process as currently conceived, is no longer realistic. Let me provide some background.

In the 1973 Federal-Aid Highway Act, the Congress enacted Section 103(e) (4) of Title 23 which authorizes the States, in conjunction with local governments, to withdraw Interstate segments, subject to a Secretarial finding that the segment is non-essential. In so doing, the Congress effectively acknowledged that not all the remaining segments in urbanized areas are essential to the high performance system of intercity and interregional highways.

The 1976 Federal-Aid Highway Act emphasized completion of gap segments and the STAA of 1978 went one step further by mandating deadlines for submission of Environmental Impact Statements and commencement of construction. Any segments failing to meet these deadlines must be removed from the system. These actions by the Congress are significant because they indicate that the Congressional concept of Interstate completion is flexible. Congress has said whole segments generally may not be essential and that other whole segments should be removed if they fail to meet deadlines. We need now to consider another aspect of the completion question. Is it necessary for every segment to be built to the highest and latest standard? We believe that the judicious deletion of some construction items from the Interstate Cost Estimate would enable us to finish the initial construction of the System within a reasonable time frame, thus serving the basic intent of the Congress.

As we enter the decade of the 80's, we are concerned with preserving the Interstate System in its high level of service and condition. About 2,000 miles reaches pavement design-age per year. In addition, 23 percent is congested at peak periods and 13 percent of its bridges were deficient in the latest study.

Initially, post-Interstate completion work was to be part of the Federal-aid primary program, with maintenance a State responsibility. This policy was somewhat altered by the enactment of a separate Federally-funded Interstate program which shared responsibility with the States for resurfacing, restoration, and rehabilitation (3R) needs. The 3R program was authorized at $175 million annually for FY 80 and FY 81 increasing to $275 million in FY 82 and FY 83. In most cases though, funds simply will not be sufficient to meet the needs. The situation will become more severe and lack of work on these sections will ultimately require their full reconstruction, rather than the less costly 3R. Though the argument can be made that Federal-aid primary funds and State-only funds can or should be used to supplement 3R funds, experience tells us that this does not appear to be a realistic solution.

If we exclude Federal Interstate completion and 3R funds and the required State matching funds associated with Federal grants, the Interstate System has received less than 2 percent of its capital funds from other sources. Given the rapid increase in the costs of highway construction and the relatively low State priority on meeting Interstate 3R needs, it is unlikely that the Interstate System will capture more than the same 2 percent in the future. The system is almost entirely dependent on the Federal-aid program for capital investments.

Maintenance and 3R concerns represent a major interest of many highway interest groups. It is important to understand that in our terminology, maintenance is correction of minor deficiencies, not replacement of extensive road sections which have reached their service life or surpass capacity. In the maintenance area, State disbursements have exceeded cost increases. The States have used a major part of their available funds to carry out maintenance. We must remember that maintenance cannot substitute for needed 3R capital investment and it is in the 3R area that the States have not kept up because funding has not met cost increases.

The Bridge Program received a major increase and redirection as part of the '78 Act. Funds are aimed at replacement or rehabilitation of bridges on and off system. The 1979 Bridge Report shows 99,300 eligible bridges on the inventory at an estimated repair or replacement cost of $33.2 billion.

The categorical nature of this program makes it different from the other major programs, in that it is not "system oriented." This departure from past funding trends is itself a reflection of a very active Federal role in highway safety. However, there is a significant overlap between the bridge program and the Federal-aid system program because a large percentage of the bridge needs are also Federal-aid system needs and about 75 percent of the bridge program funds are invested in the Federal-aid systems. There may be advantages in eliminating this overlap; however, whatever program option is chosen, we are acutely aware of the inherent dangers involved with unsafe bridges and the effects of deficient bridges on the efficient movement of goods and services.

Highway safety is an integral part of our Federal-aid program as we continue to strive for a reduction in the number and severity of accidents. The categorical Highway Safety Improvement Program includes hazard elimination, rail-highway crossings, and pavement marking. Safety improvements , including the upgrading of features, represented an investment of about $1.6 billion in FY 79 on the Interstate, Primary, Secondary and Urban Systems.

Now let me again mention that we have been soliciting a wide range of public and private perspectives on the program. Department representatives have been consulting with local and State officials over the past few months . This process, I believe, has proven worthwhile in determining local needs, involving local interests in the Federal legislative process, and giving us a better view of the wide differences, as well as similarities, between regional needs in the country.

It is now time to turn the corner to a new direction, to meet new challenges, as we begin to shift emphasis in responding to new demands. I am pleased to have the opportunity today to discuss with you our objectives, and the possible courses we might take.

The traditional goals of the Federal-aid highway program have been to: (1) provide for an interstate highway network to serve the national defense and interstate travel; (2) develop with the States a national system that facilitates interstate commerce; (3) help balance interjurisdictional transportation; and (4) improve highway safety.

Current objectives we are also responding to include conserving energy, reducing inflation, minimizing adverse social, economic, and environmental effects, and revitalizing central cities, industrial centers, and declining population regions. We are concerned about improved equal employment opportunity and greater minority business participation.

The balancing of traditional Federal highway program goals, more recent national priorities, and the continued existence of a substantial Federal-aid highway system suggests the following five major objectives for the legislative proposal:

1. Improve national productivity by ensuring the Nation's highway systems are adequate to support national industrial growth and development.
2. Ensure that adequate resources are available for needed highway investment.
3. Ensure that highway taxes are equitable and efficient.
4. Improve the flexibility of State and local governments in meeting transportation needs and reduce Federal involvement in local transportation activities.
5. Assure continued improvement in highway safety.

Mr. Chairman, I believe the legislation you introduced, S. 2913, is a good vehicle for leading us in the right direction. Two factors are critical: most of the program terminates with the 1982 authorizations, which are apportioned to the States on October 1, 1981; and the Highway Trust Fund expires on September 30 1985, but the tax revenue ceases in 1984. An assessment of highway program options is especially timely since this Subcommittee and the Congress will be able to consider revenue sources as well as program authorizations in extending Federal-aid highway legislation beyond 1982.

The revenue and program decisions involve two interrelated issues: (1) performance of the existing systems and the Federal role in preserving and improving conditions, and (2) the source and amount of revenue which can be raised from various taxes to finance the highway program.

Since 1956, there has been a critical relationship between user-revenues and long-term Federal financial commitment in the Federal-aid highway program. Under the present financing system, users pay all or a portion of the cost of improving the system and equity is addressed by periodic adjustments in user taxes. While there appears to be a trend toward more non-user revenue financing for highways (particularly at the local level, but also at the State level), the Federal-aid program has been consistent in basing its program on a user-pays concept.

The Highway Trust Fund revenues are derived from three main sources. The 4-cent per gallon gasoline tax produces about $4 billion a year, and other user taxes on tires, diesel fuel, lubricating oil, truck sales, and truck use produce about $3 billion. Interest on the Trust Fund's cash balance will provide over $1 billion for this year.

The Trust Fund revenue outlook for the 1980's has changed markedly from that of the 1970's. With recent improvements in auto fuel efficiency, the decrease in highway travel, and the expected increase in gasohol consumption (which is tax exempt), the growth rate in tax revenues is expected to slow considerably. The average annual rate of growth during the 1970's was 4.5 percent compared to an expected annual growth rate of 1.5 percent between 1979 and 1984. In dollars, revenues will grow from $7.2 billion in 1979 to $7.7 billion in 1984. With future costs rising at least at this 1.5 percent a year level, a program operating at constant levels will deliver less each year.

There are four basic alternatives in long-term revenue policy:

- Stable Program. Maintain the Trust Fund and taxes and accept future program reductions due to decreasing fuel consumption and inflation;
- Expanded Tax Base. Keep the Trust Fund and increase user revenues through indexing to need or some other basis so that the program remains constant in real terms;
- General Fund Transfer. Provide for annual transfers from General Funding to the Trust Fund in amounts necessary to meet liquidating cash needs in the highway program.

- General Fund. Terminate the Trust Fund and finance the highway program from general revenues without regard to user revenues.

To provide revenues for an increased program level, there are several alternatives—increasing the Trust Fund unit taxes, converting to an ad valorem gasoline tax as in Title II of S. 2913, indexing the motor fuel taxes to some measure of highway need, or developing new taxes, such as ton-mile or weight taxes.

If we retain the user tax system, then the results of the Cost Allocation Study, now in preparation, will help in examining the alternative user taxes as well as gas tax options. Cost responsibility, for the purpose of the study, is defined as the assignment of future highway costs, both the costs associated with the use of the existing system and those associated with additions to the system. Such cost allocation or responsibility assignment of each vehicle class consists of assessing both those costs which can be attributed to those vehicle classes and the remaining common or joint costs which cannot be attributed to particular vehicle classes or their roadway usage. As the highway program changes, both in terms of level and program mix, so the relative responsibilities of each class of user to cover Federal cost change. For instance, there may be inequity among various classes of users in the light of changing program emphasis on rehabilitation, and user charges would be adjusted accordingly.

It is necessary to point out that almost all highways on the Federal-aid system are owned, operated and maintained by the States or some local jurisdiction. Consequently, there are wide variations in how States and localities view the condition of their roads and what they determine to be their highway priorities. The Federal-aid program must remain flexible enough for the recipients of the funds to provide adequately for their unique conditions and priorities.

In dealing with the issue of future highway needs at the national level, questions must be asked concerning Federal involvement, funding commitment, and what criteria should be applied to a particular system. Should we assume that the Interstate System, for example, must have better overall pavement condition, fewer deficient bridges, and less congested mileage than the rest of the Primary System? Should we attempt to eliminate all highway deficiencies or should we, instead, change our criteria for defining a deficiency to account for normal depreciation of the highway facility? And if so, how do we meet future costs? Since the starting point for estimating needs is a set of criteria which identifies what is unacceptable, it is easy to see that the cost of future needs is very sensitive to what we are willing to accept. Currently, these criteria are based on decisions which balance engineering concerns with cost constraints. It may be that these criteria should be reexamined in light of current economic conditions and energy concerns. In addition, there are major differences in needs and problems in various parts of the country which require Federal assistance tailored to regional issues; for instance, the growing Southwest faces issues different from the established Northeast.

Understanding and defining the Federal role in the overall highway program is a key issue in considering and formulating the 1981 Federal-aid highway legislation. At the moment the Federal program faces a fundamental dilemma: it is being used to pursue an increasing number of programs and national objectives with shrinking funds. We need to focus again on the questions of what it is that we want to achieve through this program and how our objectives can be met most efficiently.

In sum, there are four major directions the Administration and Congress must address and bear in mind while deliberating the content of proposed legislation. They range from:

One, continue the range of programs in Title 23, and at current authorization levels, which would reduce real spending.

Two, maintain current programs in terms of constant dollars, by increasing revenues and authorizations.

Three, substantially modify the Federal role by phasing out or reducing Federal-aid programs and involvement. This could include a turnback to the States or reduction of Federal revenues, or a block grant relationship; or

Four, enlarge the Federal responsibility with a corresponding upgrading of standards, requiring a significant increase in highway-funding resources.

As I said at my confirmation hearing, I believe that fulfilling America's transportation needs is a national priority. The Federal Highway Administration—we at the Department of Transportation—are pleased to work with this Committee and the Congress toward the development of legislation that meets our Nation's needs. We approach this task with anticipation and optimism and appreciate your assistance.

AMERICAN ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION OFFICIALS

W. A. BULLEY, President
Secretary
Washington Department of Transportation

FRANCIS B. FRANCOIS
Executive Director

TESTIMONY BEFORE THE
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
SUB-COMMITTEE ON TRANSPORTATION

FUTURE HIGHWAY LEGISLATION
S. 2913

by

WILLIAM A. BULLEY

President of AASHTO, and Secretary, State of
Washington Department of Transportation

August 19, 1980

Founded in 1914, AASHTO represents 52 member departments concerned with highways and transportation including the departments of all 50 states, the District of Columbia and Puerto Rico, to foster the development, operation and maintenance of an integrated national transportation system. The active members of AASHTO are the duly constituted heads and other chief directing officials of the 52 member highway and transportation agencies.

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My name is William A. Bulley, Secretary of the Department of Transportation for the State of Washington, and President of the American Association of State Highway and Transportation Officials. I am pleased to appear here today on behalf of AASHTO to present our views on the need for new highway legislation at the Federal level. With me today are Richard A. Ward, Director and Chief Engineer of the Oklahoma Highways and Transportation Department, and Vice President of AASHTO, and Francis B. Francois, Executive Director of AASHTO.

Mr. Chairman, we appreciate this opportunity to talk with you and your colleagues about the future of America's highways, and our Federal-Aid Highways Program. The introduction of S.2913 and these hearings come at an important time in the development of an adequate, well-maintained transportation system for this nation, for there are several major decisions which soon must be made. We in AASHTO feel that the action Congress takes next year regarding the Highway Program will be a major factor in determining the destiny of our transportation network.

With the help of Congress, our states have developed a good national highway system. But as we enter the 1980's, a number of factors are at work which must be accomodated if we are to have continued progress in meeting our emerging needs. I would first like to review some of these factors with you, then offer AASHTO's views on what should be done, and finally comment specifically on S. 2913.

During the 1970's, our nation entered an era wherein the supply of petroleum is now recognized as limited, and the price of available petroleum products has greatly increased over what had prevailed for the past several decades. These twin conditions of limited petroleum product availability and greatly increased cost will be part of our national scene in the 1980's, and they affect our highway program in a great many ways.

We have adopted energy conservation as national policy, and have set national goals for increasing the mileage per gallon to be obtained from our motor vehicles. Increasing numbers of Americans are turning to more fuel efficient vehicles, in an effort to both reduce fuel usage and cope with rising fuel cost. The result of all this is that the gallonage total of motor fuel utilized by Americans is falling, along with the revenue received from gallonage-based fuel taxes.

In addition, the mix of lightweight and heavier weight vehicles on our highways has been altered. Since license fees are often based on vehicle weight, revenues within states that follow this principle suffer as more smaller automobiles are registered.

In summary, as we enter the 1980's our states have been facing stagnation and actual decline in these traditional sources of revenue to support our highway programs. However, highways continue to wear out, and new construction is still needed. But that is only one side of the problem.

Those who must build and maintain our highway system are faced by the same increased petroleum product costs that are affecting all Americans. The cost of asphalt has risen sharply, as has the cost of fuel for our trucks and equipment. Indeed, the budgets of our departments have been heavily hit across the board by inflation.

The combination of stagnating or declining revenues and increasing costs is placing state departments of highways and transportation in a difficult bind. The Federal Highway Trust Fund is also affected by a stagnation in revenues. Clearly, a funding problem exists for our national highway programs.

It has been estimated that state highway departments have trimmed their spending plans for 1980 by some 15 percent, and discussions with leaders of these departments indicate the outlook for 1981 will be similiar. This past year, our states in total earmarked some $2.5 billion for new construction on Federal-Aid Highways, a 37 percent reduction from 1979. In addition, the states cut back by 45 percent on planned spending for new primary, secondary, and urban road projects, as is evidenced by the attached table taken from the July 10, 1980 issue of Engineering News-Record.

Virtually every state, even those with substantive dollar gains in money available, reports that higher costs and tighter budgets will force a real decline in the amount of new construction and 3R work completed this year. For example, Missouri reports that because of the rapid escalation in highway costs it has cut by 30 percent the amount of work it can finance and put to bid. They in fact cancelled their June bidding schedule, and have curtailed spending plans for the remainder of the year. A similiar situation exists in Michigan, where the Department of Transportation estimates that 40 percent less work will be accomplished during this current fiscal year. Such cutbacks in our highway programs delay needed highways and improvements in the existing system, and thus hurt our national transportation network. They also mean fewer jobs, in a time of rising unemployment.

Several state legislatures have taken up the problem of financing our transportation needs, given today's conditions. A clear majority of the states have a fixed cents-per-gallon rate motor fuel tax, and as a result tax revenues are falling behind the sharp escalation in construction and maintenance costs. Recognizing the problem, eight states have increased their gasoline tax thus far this year, and nine states did so in 1978-79. A table is attached to this statement, listing the 50 states with the amount of their gasoline and diesel fuel tax, and the date of their last increase.

A review of the actions by the states should be helpful to you, Mr. Chairman. In New Mexico, the legislature has adopted a gasoline fuel tax adjustment scheme that ties the amount of the tax to the price of the motor fuel. In 1977, my state of Washington adopted a "variable" percentage gasoline fuel tax, making us the first state to take this type of approach. We need to take a careful look at these new approachs to taxing motor fuel, and of course S.2913 addresses this issue.

We believe that the states are now facing up to the need for greater revenues to support the vitally needed development and maintenance of our highway system, as is evidenced by the attached table of state actions on fuel taxes. Let me turn now to the Federal-Aid Highway Program.

Recently, we have seen estimates that the revenues of the Highway Trust Fund are not adequate to meet planned expenditures. This year, our states have had to contend with Federal aid funding cutbacks that affected our ongoing highway construction programs, and we have seen reductions in the highway budget made in the effort to control Federal spending. At the same time, our Interstate system remains incomplete , and, according to the Federal Highway Administration construction costs continue to escalate at a current rate of some 12 1/2 percent annually. Clearly, unless something is done by Congress the Federal-Aid Highways program we have all worked so hard to develop is in trouble, and cannot deliver what we have all agreed is needed.

To compound the problem, our highways are wearing out at an accelerating pace, and we thus must undertake a more vigorous maintenance and reconstruction effort.

The members of AASHTO have always been concerned about providing an adequate highway system for our nation. Looking at today's situation, we recently convened a special task force on the future of highway legislation. It was given the charge to develop recommendations for future Federal-Aid Highways legislation, taking into account our energy situation, inflation, and the needs of the existing highway system.

The AASHTO task force sought the help of all our states, to identify issues and suggest solutions. Opinions were also solicited from those outside of AASHTO, including other organizations active in the highway transportation field. The members of our Standing Committee on Highways were specifically involved in the effort, which led to the production of a report on the future of highway legislation. A copy of that report is attached, Mr. Chairman, and it includes 17 specific policy recommendations.

Following presentation of the task force report to the AASHTO Executive Committee, it was submitted to our member departments for balloting. A copy of the ballot is attached to the task force report. Under the by-laws of AASHTO, a two-thirds majority of our member departments is required to adopt major policy statements. I am pleased to report that all 17 recommendations of this task force received this majority.

These newly adopted AASHTO policies on the future of highway legislation represent a consensus of the departments of highways and transportation in the 50 states, the District of Columbia and Puerto Rico. We involved the people most directly responsible for planning, building and maintaining America's transportation system, and they have reached a consensus on what ought to be done.

Mr. Chairman, I would like to highlight for you and the members of this Committee some of the findings of AASHTO, based upon the results of this recent balloting:

1. The Interstate Highway System should be completed at the earliest practicable time. (Policy #8)
2. The Interstate 3R program should be continued, and expanded to include reconstruction. (Policy #8)
3. There should be increased funding for the Interstate Highway System, and the 4R program. (Policy #8)
4. The Interstate Highway System and the Primary System should each remain separate and distinct from other systems, and there should be no substantial increase or decrease in the present Federal-Aid Highway System. (Policies #'s 8, 9 and 10)
5. The Federal Highway Trust Fund should continue indefinitely and remain exclusively dedicated to highway and related public transportation facilities. (Policy #1)
6. The Federal Highway Trust Fund must receive additional revenue, coming from new sources of revenue and increased levels of receipts from present sources, with the additional revenues being directed toward increased funding of current programs. (Policies #1 and 2).
7. The Federal Highway Trust Fund should continue to provide basic support for highway and related programs through categorical cost reimbursement grants to the states, with the categories being reduced to Interstate, Primary, Secondary, Urban, Safety and Bridge Replacement, with simplified provisions for transfers among categories, and retention of minimum apportionments for each category. (Policy #6).

8. A careful study is needed to determine more equitable apportionment formulas, which may include new elements such as highway needs in relation to levels of service, Federal-Aid mileage, population, area and relative contribution to the Federal Highway Trust Fund. However, the concept of minimum apportionment should be retained. (Policy #7).

9. The Federal motor fuel tax rate should be adjusted annually in accordance with the percentage that the rate of gasoline tax per gallon bears to the average national wholesale price of motor fuel, less all taxes. (Policy #3).

Mr. Chairman, I emphasize again that these policies represent a consensus of all 50 states, the District of Columbia and Puerto Rico, achieved by at least two-thirds affirmative vote on each policy. But we must recognize that all states are not necessarily in full agreement with each of the seventeen policies adopted in our ballot, and that certain states face special conditions which Federal legislation should accomodate. We expect that our members will make known to you and the Congress where they have individual problems, and we hope that legislative answers can be found to meet their special situations, within the general framework of AASHTO's adopted policies.

Now, Mr. Chairman, given our understanding of the problems facing our highway program and the adopted policies I have just set forth, how do we view S.2913?

Generally, we find that S.2913 gives strong support to several of our stated policies, especially the need to continue the Federal Highway Trust Fund, further completion of the Interstate Highway System, increase the funding for the Interstate 3R program and add reconstruction as an acceptable activity, and provide new funding for the Federal-Aid Highway program. The bill also commendably recognizes the problem with our current fixed rate per gallon motor fuel tax, and proposes the substitution of a new tax for the present one.

We believe that S.2913 is a good starting point, one that can lead to legislation in the next Congress which will adequately address the highway transportation problems before us. But we do have concerns about some of the provisions of the bill.

Our first concern is that while S.2913 provides increased funding for the Interstate Highway program, in our judgement funding will still be woefully short to complete construction of the Interstate System. We are gratified at increased funding for the Primary System and Bridge Replacement and Rehabilitation, and especially the larger authorization for the Interstate 4R program in FY 1983. But we are disappointed that the already admittedly inadequate authorization level of $3 billion for Interstate construction will be reduced, not increased, in FY 1982.

On June 26, 1980, the Federal Highway Administration published a paper titled "1981 Federal Highway Legislation: Program and Revenue Options, Discussion Paper #1". In that paper, FHWA suggested four options for completing the Interstate System, ranging in cost from $26.9 billion to $50.75 billion. Without discussing the merits of the options, the cost estimates provide a good indication of the size of the task before us. Spending at a $3 billion annual rate, and faced with 12 1/2 percent annual cost increases, we suggest that completion of the vitally needed final links of the Interstate System becomes at best very problematical. We simply must increase this authorization by a substantial amount, and certainly not decrease it. In the past, AASHTO has proposed an annual funding level of at least $5 billion, and we urge your consideration of that level for S.2913.

With respect to the increase proposed for the Interstate 4R program, we welcome it as a move in the direction of meeting the needs. But when we add reconstruction to the old Interstate 3R program, an action which as noted AASHTO supports, we also increase the amount of money necessary for the program. Thus, we believe this authorization should also be larger.

The proposed increased funding for the Bridge Replacement and Emergency Relief Programs is clearly timely. The bridge problems of our nation are rather well known, and more fiscal help is clearly necessary. In my state of Washington, we have faced the need to finance the replacement of a single bridge that would use up all of our normal authorization, and more.

Looking more broadly, Mother Nature has made the year 1980 a bad one nationwide for our highway system, because of sustained, unusually high temperatures that have attacked our pavements. We have seen a great many "blowup's", which occur in the presence of such prolonged, high temperatures. The heat causes pavement expansion and moisture under the pavement creates internal pressures, which cause the pavement surface to buckle or even explode. To give an example of the problem, last year Iowa spent $168,000 on highway patching. This year, because of prolonged heat wave conditions, they anticipate an expenditure level of over $250,000. A statement from the Iowa Department of Transportation is attached, describing the "blowup" problem. While these heat wave caused problems are not included as a natural disaster under Section 125 of U.S.C. Title 23, Emergency Relief Program, they serve to emphasize the unusual needs we are now facing.

Looking again at the activity of Mother Nature, we have just endured the first hurricane of 1980, and more are probable. And in my state, Mt. St. Helen's remains at work, belching out volcanic products. It appears the need for Emergency Relief will be unusually large, from what has and is occurring.

There are several provisions in S.2913 about which we have concerns, but which we will not go into detail on at this time. Included among these are questions concerning the changes in the formula for apportioning Interstate 3R funds, the changes in the factors included in the Interstate Cost Estimate and the new time for its submittal, and specific authorization levels for each year and their apportionment. We recognize this bill has just been introduced, and that members of the Committee and the Committee staff will undoubtedly be proposing a number of changes to its provisions. Thus, we would like to reserve our detailed comments on specific sections until later, while pledging to you our cooperation in helping to produce a final bill.

Let me now turn to Title II of the bill, which proposes that the present 4¢ per gallon gasoline tax be changed to a 4% tax, with a floor of 4¢ per gallon, and similar changes in the tax on diesel fuel. Mr. Chairman, we highly commend the sponsors of S.2913 for placing this concept in the bill, so that it can be debated and discussed. Certainly, it moves in the direction of the stated policy of AASHTO, and attempts to deal effectively with the conditions we are now facing because of the limited supply and higher prices of motor fuel.

As I have noted, some of our states have had experience with a tax of this kind, including my own state of Washington. We hope that the members of the Committee will inquire of those states as to how effective the tax has been, and what pitfalls are involved.

AASHTO continues to support the concept that users should help pay for the services of our highway system, and the motor fuel tax is one good way to carry out this concept. But we would suggest, Mr. Chairman, that the circumstances of today are different from those which existed when the motor fuel tax concept was first conceived.

In the past, as vehicle miles travelled increased, so did the use of motor fuel, and consequently the revenue from the motor fuel tax. At the same time, the cost for building and maintaining a mile of highway was relatively constant. All that has now changed.

Today, we are seeing vehicles with progressively improving mileage-per-gallon performance, coupled with higher fuel prices that cause some to limit their driving. At the same time, maintenance and construction costs are rising sharply. We analyzed this problem earlier, and simply again point out that these things affect the effectiveness of a motor fuel tax.

Beyond this, we are now seeing growth in the use of alternative fuels, some of which may not be covered under the conventional motor fuel tax. The problem of gasahol has already been faced. Now we see prospects for using alcohol alone as a fuel, and other fuels such as natural gas or methane. In addition, the era of the electrically powered vehicle will soon be with us, a vehicle that does not directly use any liquid or gaseous fuel.

All of these things do not mean we should abandon use of the motor fuel tax concept, for certainly gasoline and diesel fuel will be with us for many more years to come. But we must recognize that the motor fuel tax is no longer the sound, all-purpose measure of usage it once was. We expect this problem will be addressed in the upcoming report on allocating costs among the different users of our highway and transportation system, and we urge that no final action be taken until that report has been made available and has been analyzed.

Mr. Chairman, we also suggest that the problems of financing the Federal-Aid Highways program cannot be solved by simply changing the 4¢ motor fuel tax to a 4% tax. The needs of our highway program for construction and 4R activity are very large, and the Federal Highway Trust Fund is already in financial difficulty. We do not yet know the full extent of the problem, but the highway needs study now under completion by the Federal Department of Transportation should disclose the magnitude of what is necessary to us within a few months, at most. We would hope that no final funding decisions will be made until after this study has been completed and analyzed, so that any bill which is passed will truly deal with the whole problem.

AASHTO recognizes that there are many unaddressed highway needs in America, and that we must deal with them. Like this Congress and the Administration, the members of AASHTO are dedicated to providing the American people with a comprehensive transportation system. But we know that highways are and will remain the background of any multi-modal system, since they carry 85 percent of all passenger miles of travel, 21 percent of intercity ton-miles of freight, and nearly 100 percent of urban goods movement. We simply must build and maintain an adequate highway system. Mr. Chairman and members of the Committee, that is our goal, and we believe you and the American people support it.

Mr. Chairman, we believe that S.2913 moves toward the goal of an adequate highway system, and we applaud the bill's sponsors. At the same time, we think the bill should be amended to accomodate the concerns which AASHTO has set forth, and we stand ready to help in that effort.

Mr. Chairman, on behalf of AASHTO, I thank you for providing us with this opportunity to express our thoughts on the future of highway legislation.

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STANDING COMMITTEE ON ADMINISTRATION

MOTOR FUEL TAX RATES
In Cents Per Gallon

STATE			PREVIOUS RATE		DATE OF LAST CHANGE	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Alabama	.10	.11	.07	.08	1980	1980
Alaska	.08	.08	.07	.07	1961	1961
Arizona	.08	.08	.07	.07	9-74	9-74
Arkansas 1(	.095	.105	.085	.095	7-1-79	7-1-79
California 2(	.07	.07	.06	.045	10-1-63	7-1-53
Colorado	.07	.07	.06	.06	7-69	7-69
Connecticut	.11	.11	.10	.10	1976	1976
Delaware	.09	.09	.11	.11	9-78	9-78
Florida	.08	.08	.07	.07	7-1-71	7-1-71
Georgia 2(	.075	.075	.065	.065	6-1-71	6-1-71
Hawaii 2(	.085	.085	.05	.05	5-75	5-75
Idaho	.095	.095	.085	.085	1976	1976
Illinois 2(	.075	.075	.06	.06	8-1-69	8-1-69
Indiana 2(11(	8%	8%	.08	.08	7-1-80	7-1-80
Iowa 3(	.10	.115	.085	.10	7-1-79	7-1-79
Kansas	.08	.10	.07	.08	1976	1976
Kentucky 4(12(	9%	9%	.09	.09	7-1-80	7-1-80
Louisiana	.08	.08	.07	.07	1-6-69	1-6-69
Maine	.09	.09	.08	.08	6-71	6-71
Maryland13(	.09	.09	.07	.07	7-1-72	7-1-72
Massachusetts	.085	.085	.075	.075	7-75	7-75
Michigan 2(	.11	.09	.09	.07	1-1-79	1-1-79
Minnesota	.11	.11	.09	.09	5-1-80	5-1-80
Mississippi 2(	.09	.10	.08	.08	7-73	1966
Missouri	.07	.07	.05	.05	8-13-72	8-13-72
Montana	.09	.11	.08	.10	1979	1979

STATE	TAX RATE		PREVIOUS RATE		DATE OF LAST CHANGE	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Nebraska 5(	.10	.10	.095	.095	1977	1977
Nevada	.06	.06	.055	.055	1955	1955
New Hampshire	.11	.11	.10	.10	1979	1979
New Jersey	.08	.08	.07	.07	8-13-72	8-13-72
New Mexico 10(	.08	.08	.07	.07	7-1-80	7-1-80
New York 2(	.08	.10	.07	.09	2-72	2-72
North Carolina	.09	.09	.07	.07	7-69	7-69
North Dakota 9(	.08	.08	.07	.07	1977	1977
Ohio	.07	.07	.05	.05	5-59	5-59
Oklahoma	.0658	.065	.0558	.055	1949	1949
Oregon	.07	.07	.06	.06	10-1-67	10-1-67
Pennsylvania	.11	.09	.06	.08	1979	9-74
Rhode Island	.10	.10	.08	.08	6-75	6-75
South Carolina	.11	.09	.10	.08	10-1-80	1977
South Dakota	.12	.12	.09	.09	4-1-80	4-1-80
Tennessee	.07	.08	.05	.07	1932	1963
Texas	.05	.065	.04	.06	9-55	9-55
Utah 14(	.09	.09	.07	.07	7-1-78	7-1-78
Vermont	.09	6(	.08	.00	5-71	1955
Virginia 4(	.11	.11	.09	.09	7-1-80	7-1-80
Washington 7(	.12	.12	.09	.09	1977	1977
West Virginia	.105	.105	.085	.085	7-1-78	7-1-78
Wisconsin	.07	.07	.06	.06	1965	1965
Wyoming 15(	.08	8(	.07	1.0 mil.per ton mile	3-76	1977
Puerto Rico	.16	.08	.11	.04	5-10-74	6-20-70
Washington, D.C.	.10	.10	.08	.08	1976	1976

1(Bordering state rates apply if lower at areas adjacent to that state.

2(In addition to regular tax rate, a 3% to 8% state and city sales tax is levied on the retail price of fuel in these states.

3(Gasohol sales tax is 3% of retail price

4(Trucks with more than 2 axles pay an additional 2¢ per gallon. Additional 2% may be levied by counties in Northern Virginia.

5(The tax is 5.5¢ a gallon on fuels containing a minimum of 10 percent agricultural ethyl alcohol of at least 198 proof.

6(75% higher license plate fee for diesel engines.

7(This state has a variable gasoline tax based on 21.5 percent of the weighted average retail sales price of motor vehicle fuel. The minimum rate is 9 cents, the maximum 12 cents. Each 6 months tax rate is computed and rounded to the nearest 1/2 cent.

8(In lieu of the gasoline tax the user tax is 1.1 mills per ton mile, in addition to 1-1/2 mills per ton mile for compensatory fee.

9(Gasohol is exempt from 4¢ of state tax.

10(Variable tax rate based on wholesale price of fuel.

11(Tax is levied at 8% of wholesale price of gasoline with a maximum cap of 16¢ per gallon.

12(Tax rate of 9% of wholesale price.

13(Gasohol is exempt from 4¢ of state tax until 5/1/81; thereafter, exempt from 1¢ of state tax.

14(Tax of 4¢ per gallon levied on sale and use of gasohol, 7/1/80 through 7/30/85.

15(Sales of gasoline and gasohol exempt from 3% state sales tax.

REPORT OF
THE TASK FORCE ON FUTURE HIGHWAY LEGISLATION

Presented to

The AASHTO Standing Committee on Highways

June 23, 1980

Members of the Task Force

Maynard C. Sommer, Chairman Director & State Highway Engineer	South Dakota
B. K. Cooper Chief Engineer	Arkansas
Jack Freidenrich Director, Engineering & Operations and State Highway Engineer	New Jersey
Dean Tisdale State Highway Administrator	Idaho
Richard A. Ward Chief Engineer	Oklahoma

HIGHWAYS

Issue No. 1: The Future Purposes of the Highway Trust Fund

Conclusions: It is in the national interest that the Federal Government continue its role and responsibilities over the Federal-aid system of highways. The Federal Highway Trust Fund should continue to be the repository of Federal excise and highway user fees and taxes. The Highway Trust Fund should continue to fund Federal-aid highways and other highway-related facilities with such new sources and increased levels of funding from present sources as may be necessary to provide for increased highway needs.

Legislative Recommendations: The Federal Highway Trust Fund is to be extended indefinitely, and legislative action is to be taken to obtain new sources of revenues as well as to expand levels of revenue from present sources. Trust Fund revenues are to be exclusively dedicated to highway and related public transportation facilities.

Issue No. 2: Uses of any Increases in Revenue to the Federal Highway Trust Fund

Conclusions: Increases in Trust Fund revenues should be principally devoted to mitigating the effects of inflation on current program areas with emphasis on additional support for 3R and bridge replacement and rehabilitation.

Legislative Recommendations: Legislative efforts are to be directed toward increased funding of current programs. Safeguards are to be taken to prevent dilution of funding through addition of new programs. Funding emphasis is to be placed on 3R and bridge replacement and rehabilitation.

Issue No. 3: The Federal Motor Fuel Tax

Conclusions: The Federal motor fuel tax should be adjusted to reflect a ratio or percentage of value that is sensitive to some indicator of costs.

Legislative Recommendation: The Federal motor fuel tax rate should be adjusted annually in accordance with the percentage that the rate of gas tax per gallon bears to the average national wholesale price of motor fuel, less all taxes.

Issue No. 4: Funding of Mass Transit and Modes other than Highways

Conclusions: The Federally-aided transportation modes including railroads, air carriers and airports, and waterways should be separately funded from specific-revenue trust funds, aided by general fund appropriations where user-derived revenues are insufficient. Mass transit should receive supplemental funding from the windfall profits tax in addition to existing sources. All funding and administrative functions for mass transit should be transferred to UMTA.

Legislative Recommendations: This issue is to be referred to the appropriate modal committees of AASHTO with the conclusion as above but without recommendation.

Issue No. 5: Disposition of Oil Windfall Profits Tax Revenues

Conclusions: Transportation consumes 45 percent of the petroleum-based energy in the United States, and should share in the Windfall Profits Tax revenues. The share devoted to transportation should be used to (a) supplement the Highway Trust Fund, (b) provide grants to the states for transportation purposes in a form similar to revenue sharing, (c) provide assistance to urban mass transit, and (d) fund public transportation and rural mass transit programs which aid the aged, the handicapped and the economically disadvantaged.

Legislative Recommendations: Efforts should be made to secure a share of windfall profits tax revenues for transportation purposes.

Issue No. 6: Federal-aid Highway Categories

Conclusions: The Federal Highway Trust Fund should continue to provide the basic support for highway and related programs in the form of categorical cost reimbursement grants to the states. The grant program should be limited to the following categories: Interstate, Primary, Secondary, Urban, Safety and Bridge Replacement. Increased transferability should be allowed among categories with a minimum of "red tape".

Legislative Recommendations: Legislative efforts are to be directed toward reducing the number of funding categories to Interstate, Primary, Secondary, Urban, Safety and Bridge Replacement with simplified provisions for transfer among categories. Minimum apportionments for each category are to be retained.

Issue No. 7: Apportionment of Federal-aid Highway Funds

Conclusions: Apportionment should be based upon a recognized and acceptable measure of need that would be equitable to all states. New formulas should be developed for determining each state's apportionments. Minimum levels should be retained.

Legislative Recommendations: No legislative action is recommended at this time. However, an intensive study by AASHTO to determine more equitable apportionment formulas to present to Congress is recommended. Such study may include new elements such as highway needs in relation to levels of service, Federal-aid mileage, population, area and relative contribution to the Federal Highway Trust Fund. The concept of minimum apportionment is to be retained.

Issue No. 8: The Future of the Interstate Highway System

Conclusions: The Interstate should remain a separate and distinct highway system because of its unique needs and purposes as a National Defense Highway System. The backlog of 3R and construction needs will require a vast increase in funding levels. Efforts should be directed toward completion of the system at the earliest practicable time. Transfer provisions for Interstate funds should be continued and made applicable to those Interstate links which cannot be completed for any reason.

Legislative Recommendations: Interstate and Interstate 3R are to be combined into one program following completion of the system and continued at the present 90-10 funding ratio. Funding levels are to be increased to expedite completion. Interstate 3R is to be expanded to include reconstruction. Transferrability of Interstate funds, including transfer of funds from withdrawn sections is to be continued with a minimum of "red tape".

Issue No. 9: Organization of Highway Systems

Conclusions: There should be no substantial increase or decrease in the present Federal-aid highway system. The predominant attitude among the states is that the Federal-aid highway system should remain essentially the same as it is today.

Legislative Recommendations: No legislative action required.

Issue No. 10: The Primary Highway System

Conclusions: The Primary System should remain separate and distinct from other systems. An intensified program of upgrading through construction and 3R projects should be initiated.

Legislative Recommendations: Legislative efforts are to be taken to preserve the primary system against attempts that may be made to incorporate it with other systems. Increased funding levels are required to upgrade the system through construction and 3R projects.

Issue No. 11. Urban System Programs

Conclusions: The states are to retain basic responsibility over urban system programs, including administrative and fiscal control. Planning should continue on a cooperative basis with local governments.

Legislative Recommendations: No action required.

Issue No. 12: Davis-Bacon Act

Conclusions: The Davis-Bacon Act has outlived its usefulness and should be repealed.

Legislative Recommendations: Repeal the Davis-Bacon Act.

Issue No. 13: Tolls on the Federal System

Conclusions: Tolls should be allowed to terminate with the last bond redemption at the option of the state or as provided by charter. This should not preclude the extended collection of tolls through rebonding by a toll authority. In addition, states should be allowed to establish tolls on high maintenance facilities of the Federal-aid system on which tolls are not presently being collected, such as tunnels and bridges.

Legislative Recommendations: Enabling legislation is to be enacted which would allow extension of toll-collecting authority, and to allow imposition of tolls on tunnels and bridges on the Federal-aid system at state option where no tolls exist at the present time, without obligation to repay federal-aid highway funds which may have been expended on the facility.

Issue No. 14: Highway Maintenance

Conclusions: Day-to-day routine maintenance such as mowing, snow removal, patching and intermittent sealing and spot overlay should continue to be excluded from federal participation. Present 3R highway or bridge improvements plus highway surface and shoulder treatments of one mile or greater should be eligible.

Legislation Recommendations: The 3R definitions are to be broadened to include highway surface and shoulder treatments of one mile or more and bridge deck surfacing which do not fall within the present definitions of construction whether performed by state forces or by contract.

Issue No. 15: Safety Programs

Conclusions: The number of safety categories should be reduced by combining programs offering similar services. Those programs relating to driver performance, driver education, driver and vehicle testing and licensing, accident investigations and accident research should be combined. Those safety categories relating to design, traffic control, lighting, marking, surface treatment, maintenance and construction should be incorporated into one highway safety program for funding purposes.

Legislative Recommendations: Amend Section 402 of Title 23 USC to specify more clearly the delineation between those safety programs which are related to highway construction and maintenance and those which are not. All construction, maintenance design safety projects are to be incorporated into one highway safety program.

Issue No. 16: National Speed Limit

Conclusions: Penalties for violation of enforcement of the national speed limit should be eliminated. Instead, incentive grants for meeting and exceeding the enforcement goals should be created.

Legislative Recommendations: A program of incentive grants for meeting and exceeding enforcement goals is to be created.

Issue No. 17: Truck Size and Weight

Conclusions: Uniform national standards for truck dimensions and weights should be established based upon studies now underway.

Legislative Recommendations: Recognizing that there is a cost allocation study and a truck size and weight study currently underway, this recommendation is deferred pending completion of these studies.

AMERICAN ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION OFFICIALS

W. A. BULLEY, President
Secretary
Washington Department of Transportation

EXECUTIVE OFFICE
444 N Capitol Street N.W. Suite 225
Washington, D.C. 20001
Telephone (202) 624-5800

June 26, 1980

BALLOT ON PROPOSED
FUTURE HIGHWAY LEGISLATION

		For	Against
Item No. 1	The Future Purposes of the Highway Trust Fund	___	___
Item No. 2	Uses of any Increases in Revenue to the Federal Highway Trust Fund	___	___
Item No. 3	The Federal Motor Fuel Tax	___	___
Item No. 4	Funding of Mass Transit and Modes other than Highways	___	___
Item No. 5	Disposition of Oil Windfall Profits Tax Revenues	___	___
Item No. 6	Federal-aid Highway Categories	___	___
Item No. 7	Apportionment of Federal-aid Highway Funds	___	___
Item No. 8	The Future of the Interstate Highway System	___	___
Item No. 9	Organization of Highway Systems	___	___
Item No. 10	The Primary Highway System	___	___
Item No. 11	Urban System Programs	___	___
Item No. 12	Davis-Bacon Act	___	___
Item No. 13	Tolls on the Federal System	___	___
Item No. 14	Highway Maintenance	___	___
Item No. 15	Safety Programs	___	___
Item No. 16	National Speed Limit	___	___
Item No. 17	Truck Size and Weight	___	___

Return to AASHTO offices before July 14.
Please call your vote in to the AASHTO
offices prior to mailing.

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Name

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Title

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Member Department

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AMES, IOWA - Iowa's recent heat wave has kept Iowa Department of Transportation maintenance crews busy repairing highway "blowups."

The Iowa DOT Maintenance Office estimates blowups this summer are occurring up to four times more often than in 1979. So far this year there have been more than 1,000 highway blowups.

During the summer, highways can literally blow apart because of the intense heat. Highway surfaces absorb the heat which causes them to expand. The expansion and moisture under the pavement create internal pressures that cause the surface to buckle or actually explode. Some of the breaks push jagged pieces of concrete up as much as eight to 10 inches above the surrounding highway.

Most blowups occur in late afternoon, usually past 4 p.m., after the highways have been absorbing heat all day. Highway maintenance crews work around the clock to repair the cracks and damage.

Last year, the state spent $168,000 on highway patching due to blowups. But because of the prolonged heat this summer, DOT Maintenance Office Director Fay Bloomfield expects repairs to cost over one quarter million dollars in 1980.

The Iowa DOT has been experimenting with pavement relief joints in an effort to reduce or prevent blowups. The joints are four-inch wide strips of polyurethane imbedded in the paving at 1,000-foot intervals. Maintenance Office tests show the relief joints have been effective in reducing damage to the sections of highways where the joints have been placed.

- more -

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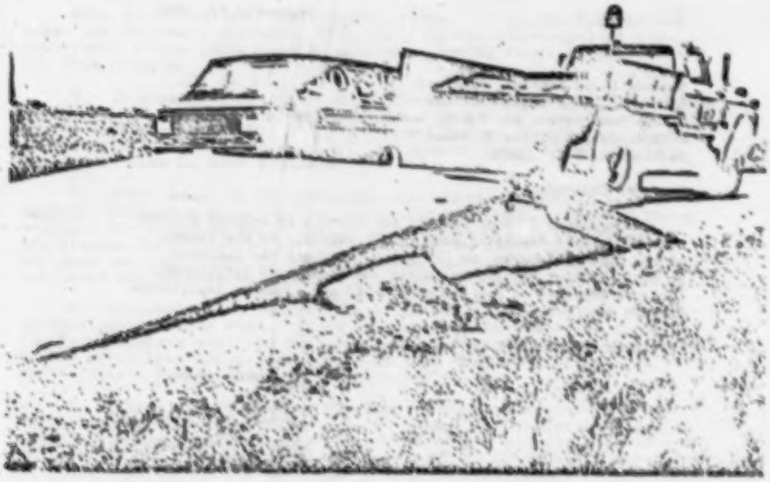

Highway blowups such as this have been occurring more this year in Iowa because of the hot weather.

#

AMERICAN ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION OFFICIALS

W. A. BULLEY, President
Secretary
Washington Department of Transportation

FRANCIS B. FRANCOIS
Executive Director

September 23, 1980

Senator Lloyd Bentsen, Chairman
Subcommittee on Transportation
Senate Environment and Public Works Committee
Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your request for answers to several written questions, as a result of your recent hearings on the future of the Highway Program, we are happy to submit the enclosed. We would be most willing to supply any additional information that you may need as you and your staff put together legislation for the next congress.

Thank you for this opportunity.

Very truly yours,

Francis B. Francois
Executive Director

FBF:js

Enclosure

EXECUTIVE OFFICE: 444 N. Capitol Street, N.W., Suite 225 Washington, D.C. 20001 Telephone (202) 624-5800

Questions for Mr. William Bulley, President, American Association of State Highway and Transportation Officials

1. Do you think it is better for the Federal government to continue its current level of highway funding or to change it in some way. Should Federal funding increase or decrease? Please comment on which programs should be expanded, and which ones should be cut back.

What do you believe the Federal interest is in the Federal-Aid Urban and Secondary Systems? What would be the advantages or disadvantages of the States and localities assuming total responsibility for this program?

2. It appears that there are different issues facing the growing Southwest and the established Northeast. Do you believe the structure of the Federal-Aid Highway Program has sufficient flexibility to meet the needs of this diverse country? Are there things which should be done to make it more flexible?

3. There seems to be agreement that certain segments of the highway system are deteriorating at an alarming rate. Some of these segments are reaching their design life. However, it appears that significant deterioration is also occurring on newer sections. Do you have any indication as to why pavement is not holding up? If not, are there any efforts underway to find out what the problem is?

4. Currently, the Federal share for most Federal-Aid highway categories is 75% or more. There has been a substantial increase in the Federal share over the past few years. What do you believe would be the advantages and disadvantages of returning to a more equal Federal-State partnership, for example 50/50?

5. States and localities continue to express frustration over increasing Federal regulations and red tape. Are there any specific areas where these problems can be reduced or the process made more efficient? For example, would it be helpful to designate the Department of Transportation as the lead agency when several agency's requirements, are involved in a project?

6. There has been a proliferation of Federal-Aid highway categories in the past. All were originally established to address a specific problem, but many of these categories could probably be consolidated or made eligible for funding through the major Federal-Aid categories. Others could be returned to the States. Would you support such an approach, and how would you go about consolidating and eliminating categories. Specifically, which existing categories could be consolidated, eliminated, or returned to the States?

7. Would you favor the expansion of the 3-R program to include reconstruction? On only the Interstate system or on all Federal-Aid systems?

8. With 98% of the Interstate System open to traffic or under construction, the 1979 Interstate Cost Estimate shows that the remaining cost-to-complete is now $50.75 billion. Despite continuing Interstate construction apportionments, that amount will continue to incrase so that under the current program the cost-to-complete will be over $42 billion in 1990. Clearly the 1983 and 1986 deadlines in current law cannot be met unless some changes are made.

(a) Would you support removing some items from the cost estimate and making them eligible under an expanded 3-R program?
(b) What items, do you believe, should be moved to the 3-R program?
(c) Do you believe the 1983 and 1986 deadlines should be adhered to?
(d) Should States which have essentially completed Interstate construction continue to receive an apportionment in that category?
(e) If Interstate segments are withdarwn from the Interstate Cost Estimate, do you believe sufficient funds will be available to finance substitution projects? Should highway substitution projects be funded from the Highway Trust Fund?

9. What do you see as the advantages and disadvantages of financing the highway program from general revenues rather than a trust fund?

10. In those States where the Interstate System is incomplete, are there any factors other than inadequate funding that are causing delays? What can be done to eliminate those delays?

11. Should the Interstate program be restructured so that there are, in effect, separate programs to address the vastly differing needs of States which are finished, and those with segments left to do?

12. Do you think that the revenue going to the Highway Trust Fund should increase? If so, what method of increasing revenues do you think most appropriate?

13. Do you find in your States that there is difficulty raising highway revenue taxes? If the Federal government provided higher funding levels for the Federal-Aid programs, would there be corresponding increases by the States? Would there be any effect on your State effort if the Federal tax becomes an indexed tax? What kind of Federal increase would have the least effect on the States? Or, do you think that the Federal government should cut back on its funding as revenues drop, and let the States take a greater role?

14. Please comment on what you believe the Federal, State and local role should be regarding the replacement and rehabilitation of bridges both on and off the Federal-aid system.

15. Traditionally, States have obligated highway funds on a first-come, first serve basis. As long as the States' collective obligation of funds was below the obligation ceiling, there was no problem. This was not the case during the past two years and most likely will not be the case in the near future. How should the Congress address this problem? Do you prefer a first-come, first-serve mechanism which tends to reward fast obligating States? Or would you prefer that a certain portion of the actual obligation authority available be reserved for each State?

Answers to questions submitted to Mr. Bulley by the Transportation Subcommittee of the Senate Environment and Public Works Committee:

1. In our statement we urge that there be an increase in the funding for the highway program. We state that the highway program should continue with the extension of the Highway Trust Fund to provide basic support for the program. We do suggest that the categories be reduced to Interstate, Primary, Secondary, Urban, Safety and Bridge Replacement, with simplified provisions for transfers among categories, and retention of minimum apportionments for each category. We also support more funding, in the "3R" category.

   As stated above AASHTO supports the continuation of both the Urban and Secondary systems.

2. There are some differences in needs between the more established Northeastern states and the growing Southwestern states, in that the former needs more reconstruction while the other new construction. There is need for more flexibility to use their funds as the need dictates at the state level, rather than just responding to needs established on a national level.

   One might suggest a study to determine more equitable apportionment formulas, which may include new elements such as highway needs in relation to level of service, Federal-Aid mileage, population, area and etc.

3. One of the reasons for deterioration of some of our Highway systems is due to the increase of traffic, particularly heavy vechicles that exceed the road design standards. Also, many roads have simply reached their design life.

4. The advantage of a 50/50 Federal-State relationship might enhance the partnership relation. However, this 50/50 participation is NOT practical due to the magnitude of the Interstate and the fiscal impact on the sparsely populated states.

5. Anything that would reduce the number of sign-off's processing certain permit procedures would be of great help. The designating of the Department of Transportation as the lead agency might help in some areas.

6. In our statement, and also in answer to question #1, we stated our support for the reduction of categories.

7. In our statement we indicate our support for an expanded 4R program provided that an increase in funding level would be a part of any expanded program.

8 (a) and (b).

   Some of our States would have great concern with removing items from the cost estimate. The question of available funding if one would move them into the 3R category would be the principle question. Our member departments will be discussing this matter further, and we should be able to speak more decisively within a few months.

8 (c).
We feel that it is possible to meet the 1983 deadline regarding the environmental statements, but do not feel that the construction date is realistic in view of the reduced obligation ceilings during recent years.

(d).
As stated earlier, we do continue to support the minimum apportionments.

(e).
We would have a great concern over using Trust Fund monies for substitution projects, except possibly for other highways.

9. One of the reasons that the Federal-Aid highway program has been so successful is due to its funding mechanism. The Trust Fund, along with contract authority, provides the needed tools for the individual state to plan ahead confidently, knowing that the funds will be there to complete the project.

10. Many sections yet to be completed are waiting for the environmental process to be completed, and some are waiting for court action to be completed. These are the principal delays, beyond funding.

11. The present law is adequate to address the situation, with the minimum allocation and the flexibility to transfer funds.

12. We mentioned in our statement that we feel strongly that the Trust Fund should be increased. We also said that the proposed 4% tax may be a step in the right direction. We acknowledged that we continue to support the user type tax approach, but feel that with newer types of transportation in the wings, a simple increase in the motor fuel tax may not be enough. We refer to a study being done by the U.S. Department of Transportation and would hope that its data could be available before any final decision is made.

13. Some of our States have taken it upon themselves to increase their revenue sources. I would call your attention to an attachment to our statement, which shows that over the past five years 24 states have increased their fuel tax rates. In our statement we indicated that Title II of S2913 is a step in the right direction. In our recent task force report, again mentioned in our statement, we do support an annual adjustment in the Federal Motor Fuel tax rate. We also state, in our prepared taxt, that efforts should be made to secure a share of the windfall profits tax revenues for transportation purposes.

14. We do support the increase proposed in S2913 for the Bridge Replacement program and would hope that it would stay in any new legislative proposal. Our primary responsibility is to those bridges on systems, but we would be willing to work on off system bridges of high propriety needs.

15. We feel that the additional controls, such as the obligation limitation is NOT necessary. It just encumbers the working relationship between the states and the Federal government in a program that has been very successful. The possible additional control on the release of the obligation authority on a quarterly basis, now being considered by Congress, is of great concern to the States, and hopefully will NOT be enacted into law.

STATEMENT OF WILLIAM N. ROSE

SECRETARY OF TRANSPORTATION

FLORIDA DEPARTMENT OF TRANSPORTATION

SUBMITTED TO

UNITED STATES SENATE SUBCOMMITTEE ON TRANSPORTATION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

AUGUST 19, 1980

Mr. Chairman and Members of the Committee:

I appreciate this opportunity to present testimony to you on S. 2913, a bill to authorize appropriations for the construction of certain highways, for highway safety and for other purposes.

For a number of years, Florida has ranked first in the nation in the obligation of its federal-aid highway apportionments. This is the result of a continuing policy to provide the best possible transportation facilities and services to our citizens and to visitors to our rapidly growing state. New highway construction and improvements to our existing road system continue to enjoy strong public support in Florida and expansion and preservation of our transportation network remain very high priorities of Governor Graham and our state legislature.

We are proud that Florida has a professional Department of Transportation capable of providing the planning and engineering services necessary to maintain the high level of production required to meet our transportation needs. But we are concerned that rampant inflation,energy uncertainties, declining revenues and new directions in national policies and attitudes threaten to reduce our program to levels insufficient to meet Florida's most basic requirements.

Florida's number one transportation problem is inadequate funding. This problem has compelled drastic action to keep the Florida Department of Transportation solvent. Contract lettings have been cancelled, programs curtailed, project schedules slipped, staff reductions ordered, and a hiring and purchasing freeze implemented.

Inflation last year for Florida highway construction ran 23 percent above the previous year. At the same time, more fuel efficient vehicles, reduced personal travel, and gasohol tax exemptions produced a real decline in the traditional motor fuel tax revenues.

Aside from the need for an inflation-responsive revenue source, Florida has unique characteristics that bear heavily on transportation financing and planning.

Contrary to the stalled growth patterns of many states, Florida is growing rapidly. Its population has risen from 2 million in 1940 to 9½ million today. If this growth continues, Florida will be the fourth largest state in the nation by 1990. This population is strung out along 1400 miles of coastline.

Florida also has the highest percentage of the so-called "graying" population of any state along with the attendant transportation needs of the elderly, handicapped, and economically disadvantaged.

Florida's economy depends a great deal on its agricultural and tourism industries, but our economic base is perceptibly broadening to include a growing influx of new industries and new people demanding additional transportation facilities and service. Unlike some sections of the country, Florida cannot say that its transportation system is essentially in place. Its highway system is grossly inadequate in heavily populated areas and virtually no modern public transportation systems are in operation.

To compound the problem, Florida's funding needs for preservation of its existing highway system are growing at an alarming rate. More than 25% of Florida's state highway system is in need of immediate repair at a 1980 cost of nearly $250 million. Almost one-third of the 5000 bridges on our system are below acceptable standards and in need of immediate repair or replacement. Funds for these repairs must be provided by the State of Florida, but the revenues used for these purposes will further reduce our capability to finance highway expansion and development programs.

Governor Graham has addressed Florida's transportation problems by appointing a Blue Ribbon Transportation Policy Study Commission. The Commission has defined levels of transportation needs, reviewed these needs in relation to anticipated revenues, and recommended a stable funding system to provide for the needs. Governor Graham has submitted the Commission's final report to the state legislature and has recommended new tax measures that will provide the necessary additional revenues.

New state revenues will provide substantial assistance for the repair and preservation of our highway system, but they will not be sufficient if they are offset by reductions or shifts in federal-aid highway funds currently available to the state. These federal-aid funds are the very heart of our program of highway system improvement, expansion and completion. Therefore, I would like to comment specifically on major elements of S. 2319 which will significantly impact our state program.

Interstate Highway System

Florida's number one highway construction need is completion of its Interstate Highway System. Florida's allocated Interstate mileage is 1460 miles. To date, 1150 miles have been completed and opened to traffic. This constitutes all of our original system approved at the inception of the program in 1956. But in 1956, Congress did not recognize Florida's explosive growth potential, and it was not until 1968 that the I-75 link between Tampa and Miami was approved, linking two of Florida's most populous urban areas. And it was not until 1978 that significant funding was made available to initiate construction of this link. Other critical missing segments were added on I-95 in 1973 and in

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Ft. Lauderdale in 1978.

One-hundred and forty miles of these remaining essential gaps in the Interstate system are now under construction and the balance of one-hundred and seventy are in the planning or design stages. In accordance with existing federal requirements, Florida is advancing engineering production on these remaining segments at a rate which will allow us to initiate construction on the last segment by September 30, 1986. However, funding will not be available to accomplish this very desirable and achievable target date unless some significant new commitments are made at the federal level.

Florida's anticipated apportionments of federal-aid highway funds between now and September 30, 1986, are estimated to be about $800 million. Our current estimate to complete the system (in 1980 dollars) is about $2.1 billion. Thus, we anticipate a shortfall (in 1980 dollars) of about $1.3 billion.

This committee recognized the Interstate funding problem in 1978 and developed certain recommendations which ultimately resulted in creation by Congress of the Interstate "lapse" pool. Florida benefited significantly from the pool of lapsed funds and advanced its Interstate program by more than two years. However, new obligation controls presently under consideration by the Congress threaten to negate the value of this very useful funding mechanism. Although those controls are not specifically a part of S. 2319, I urge you to consider the very damaging effect that may result from implementation of controls such as those proposed in S. 2720 Title II, and HR 6417 Title I, the "Federal-Aid Highway Amendments of 1980".

If these proposed obligation controls are interpreted in such a manner that Interstate "lapse" funds, or any other discretionary federal-aid highway funds awarded to a state, are charged against that state's annual obligation ceiling, these funds will be of little or no value to most states, including Florida. This unfortunate effect occurs because these "discretionary" funds would be allocated at the expense of other regularly apportioned funds. Obligation of the "lapse" funds or other discretionary funds would reduce a state's obligating authority and would force the postponement or cancellation of other planned federal-aid highway programs. Thus, the effect would be to create serious imbalances in the overall highway programs in those states receiving "discretionary" funds. This clearly was not the intent of the Congress in establishing the "lapse" pool and other discretionary programs and it is absolutely essential that mechanisms conceived to regulate the flow of federal funds not be designed or interpreted to achieve other very undesirable effects.

Other proposed changes in the Interstate construction program contained in S. 2913 must be evaluated with equal care to assure that their effect is beneficial to the program. For example, the proposed redefinition of segments eligible for inclusion in the Interstate cost estimate and the concomitant reduction in the annual authorization level from $3.5 billion to $2.875 billion will result in a shifting of very substantial sums from the Interstate construction fund to the proposed Interstate "4R" fund. This shift would have a very significant impact on individual state apportionments because the methods of apportioning the two funds are very different; the construction funds are apportioned on the basis of "cost to complete" estimates, while the 4R funds are apportioned according to a formula which considers lane miles of Interstate and vehicle miles travelled on those lanes but does not consider "cost to complete". Consequently, those Interstate projects which become ineligible for construction funds may be reprogrammed with "4R" funds, but the amount of 4R funds available for this purpose may be considerably less than the amount previously authorized in the "cost to complete" estimate.

The bill does contain a "hold harmless" clause to assure that no state will suffer an actual decline in total Interstate funds (construction plus 4R) in FY 1983, but this is not an acceptable alternative to existing provisions which would assure that the entire Interstate system is completed in all states. Because of the many interdependent changes proposed in the Interstate program, we are unable to project the actual impact on Florida and therefore we cannot specifically support or oppose the changes at this time.

However, we are able to set forth the basic principle that fairness and equity mandate that the Congress must maintain its commitment to completing all of the Interstate system. We are well aware of the national pressure to increase funding for Interstate resurfacing, restoration and rehabilitation. Florida shares this need and supports the proposed "4R" program, but these changes must not come at the expense of completing the authorized system. I have already mentioned the failure of Congress to incorporate major segments of Florida's system in the original plan. This 350 mile "oversight" severely constrained Florida's efforts to construct its entire system at a pace that would complete all segments concurrently with other states. By failing to fund this significant "essential gap" for more than 20 years, Congress assured that Florida would ultimately find itself in the position of completing its system long after its more fortunate sister states.

Nevertheless, Florida highway users contributed $3.5 billion to the federal highway trust fund during the period 1956-1978. During that same period, payments to Florida from the fund were less than $2.5 billion--a shortfall of more than $1 billion. Interestingly, this amount is very close to our present shortfall of $1.3 billion to complete our Interstate system. Considering the effect of inflation since 1956, a modest increase in Florida's annual apportionment over the years would have been more than adequate to place Florida's system in the "finished" column along with the other states. Many of those other states received payments from the federal highway trust fund that ranged from $1.50 to $9.19 for every dollar they contributed to the trust fund, compared to Florida's

70 cents for each dollar contributed. We believe that this argument alone justifies our contention that equity mandates that Congress maintain its commitment to completing the entire system, and that payments to Florida increase over the next few years to provide completion funds equivalent to those which have been contributed by Florida to other states to complete their systems. We strongly oppose any changes to the Interstate apportionment formula or any new system definition which would result in a shifting of these funds away from Florida and other states still working toward completion to provide "4R" assistance to the very states which benefited from the receipt of adequate construction funds in the early years of the program.

We strongly support any proposal which would expedite the completion of all missing links or "essential gaps" in the national system. All of Florida's remaining mileage falls in this category and it must be constructed in order to achieve the original Interstate objectives of providing a safe, efficient facility for moving people and goods, meeting national defense transportation needs and providing an emergency evacuation route. The first objective is usually remembered and commonly cited, but the latter two are frequently forgotten or ignored. However, the citizens of south Florida would be acutely aware of them in the event of a national mobilization or an emergency on the scale of the hurricanes which have devastated the Gulf Coast in recent years. Gaps in I-75 would inhibit escape inland to the west and gaps in I-95 would snarl escape to the north. The Atlantic Ocean lies to the east and a southerly path leads only to the Florida Keys, an unlikely safe harbor in any emergency.

Bridge Program Authorization

Florida supports proposed increases in this program and encourages continued high levels of funding to correct this essential weakness in our highway system. We also support the inclusion of off-system bridges in the apportionment formula and periodic updating of the cost estimates.

Car Pools and Van Pools Authorization

Florida is making a strong commitment to energy conservation in transportation and our Department recently initiated a ridesharing program that has been well received around the state. We strongly support the federal initiatives in this area.

Obligation Limitation

Raising the national obligating ceiling to $9.5 billion per year in FY 1982 and FY 1983 is a much needed response to inflationary impacts on the national highway program. However, state obligation controls as proposed in S. 2720 and HR 6417 are not desirable and could have very harmful effects as explained earlier in this presentation.

Highway Revenue Act of 1980

We described Florida's funding problems earlier in the testimony. The same factors are impacting revenues and inflating costs throughout the country. We believe that state and national programs should be financed through revenue sources that are responsive to inflation. The 4 percent tax on the average wholesale price of gasoline is an acceptable mechanism if it raises sufficient revenues to support minimum program needs. However, a cursory examination causes us to question this sufficiency, at least in the early years of the proposed tax.

Mr. Chairman, this concludes my prepared remakrs. I will be pleased to respond to questions or to elaborate on any of the issues discussed herein. Thank you for your courteous attention and consideration of our positions.

Florida Department of Transportation

BOB GRAHAM
GOVERNOR

Haydon Burns Building 605 Suwannee Street Tallahassee Florida 32301 Telephone (904) 488-8541
WILLIAM N. ROSE
SECRETARY

September 23, 1980

Honorable Lloyd M. Bentsen, U.S.S.
Chairman, Subcommittee on Transportation
Committee on Environment and Public Works
Room 4204 Dirksen Senate Office Building
Washington, D. C. 20510

Honorable Robert T. Stafford, U.S.S.
Member, Subcommittee on Transportation
Committee on Environment and Public Works
Room 4204 Dirksen Senate Office Building
Washington, D. C. 20510

Gentlemen:

In response to your letter of August 25, 1980, I am pleased to submit to you the attached responses to your questions about future directions of the Federal-aid Highway and Highway Revenue Act.

I appreciated the opportunity to testify before your Subcommittee and I look forward to working very closely with you and your Subcommittee members in the development of new highway legislation.

Sincerely,

Bill Rose

William N. Rose
Secretary of Transportation

WNR/mb

Attachment

Questions for Mr. William Rose, Secretary, Florida Department of Transportation

1. Do you think it is better for the Federal government to continue its current level of highway funding or to change it in some way. Should Federal funding increase or decrease? Please comment on which programs should be expanded, and which ones should be cut back.

What do you believe the Federal interest is in the Federal-Aid Urban and Secondary Systems? What would be the advantages or disadvantages of the States and localities assuming total responsibility for this program?

2. It appears that there are different issues facing the growing Southwest and the established Northeast. Do you believe the structure of the Federal-Aid Highway Program has sufficient flexibility to meet the needs of this diverse country? Are there things which should' be done to make it more flexible?

3. There seems to be agreement that certain segments of the highway system are deteriorating at an alarming rate. Some of these segments are reaching their design life. However, it appears that significant deterioration is also occurring on newer sections. Do you have any indication as to why pavement is not holding up? If not, are there any efforts underway to find out what the problem is?

4. Currently, the Federal share for most Federal-Aid highway categories is 75% or more. There has been a substantial increase in the Federal share over the past few years. What do you believe would be the advantages and disadvantages of returning to a more equal Federal-State partnership, for example 50/50?

5. States and localities continue to express frustration over increasing Federal regulations and red tape. Are there any specific areas where these problems can be reduced or the process made more efficient? For example, would it be helpful to designate the Department of Transportation as the lead agency when several agency's requirements, are involved in a project?

6. There has been a proliferation of Federal-Aid highway categories in the past. All were originally established to address a specific problem, but many of these categories could probably be consolidated or made eligible for funding through the major Federal-Aid categories. Others could be returned to the States. Would you support such an approach, and how would you go about consolidating and eliminating categories. Specifically, which existing categories could be consolidated, eliminated, or returned to the States?

7. Would you favor the expansion of the 3-R program to include reconstruction? On only the Interstate system or on all Federal-Aid systems?

8. With 98% of the Interstate System open to traffic or under construction, the 1979 Interstate Cost Estimate shows that the remaining cost-to-complete is now $50.75 billion. Despite continuing Interstate construction apportionments, that amount will continue to incrase so that under the current program the cost-to-complete will be over $42 billion in 1990. Clearly the 1983 and 1986 deadlines in current law cannot be met unless some changes are made.

(a) Would you support removing some items from the cost estimate and making them eligible under an expanded 3-R program?
(b) What items, do you believe, should be moved to the 3-R program?
(c) Do you believe the 1983 and 1986 deadlines should be adhered to?
(d) Should States which have essentially completed Interstate construction continue to receive an apportionment in that category?
(e) If Interstate segments are withdarwn from the Interstate Cost Estimate, do you believe sufficient funds will be available to finance substitution projects? Should highway substitution projects be funded from the Highway Trust Fund?

9. What do you see as the advantages and disadvantages of financing the highway program from general revenues rather than a trust fund?

10. In those States where the Interstate System is incomplete, are there any factors other than inadequate funding that are causing delays? What can be done to eliminate those delays?

11. Should the Interstate program be restructured so that there are, in effect, separate programs to address the vastly differing needs of States which are finished, and those with segments left to do?

12. Do you think that the revenue going to the Highway Trust Fund should increase? If so, what method of increasing revenues do you think most appropriate?

13. Do you find in your States that there is difficulty raising highway revenue taxes? If the Federal government provided higher funding levels for the Federal-Aid programs, would there be corresponding increases by the States? Would there be any effect on your State effort if the Federal tax becomes an indexed tax? What kind of Federal increase would have the least effect on the States? Or, do you think that the Federal government should cut back on its funding as revenues drop, and let the States take a greater role?

14. Please comment on what you believe the Federal, State and local role should be regarding the replacement and rehabilitation of bridges both on and off the Federal-aid system.

15. Traditionally, States have obligated highway funds on a first-come, first serve basis. As long as the States' collective obligation of funds was below the obligation ceiling, there was no problem. This was not the case during the past two years and most likely will not be the case in the near future. How should the Congress address this problem? Do you prefer a first-come, first-serve mechanism which tends to reward fast obligating States? Or would you prefer that a certain portion of the actual obligation authority available be reserved for each State?

FLORIDA DEPARTMENT OF TRANSPORTATION RESPONSES TO QUESTIONS ABOUT THE FUTURE OF THE FEDERAL AID HIGHWAY PROGRAM

1. The current level of federal aid highway funding is not sufficient to meet minimum program needs. Inflationary increases in highway construction costs in recent years have severely damaged the program. Therefore, federal funding must be increased to allow the states to return the highway program to a level more in balance with needs. However, we feel that a significant shift in program responsibilities should first take place. The federal government should limit its involvement to those programs which are clearly in the national interest, and transfer responsibility for the remainder of the programs to state ano local governments. The federal highway program would thereby be limited to construction and 3R (or 4R) funding for the Interstate and Primary highway systems. We also feel that because of the extraordinary magnitude of the bridge replacement and rehabilitation needs in this country, the federal government should maintain a high level of funding responsibility for this program. This responsibility should continue at least until the bridge problem has been substantially corrected.

   In regard to the federal aid Urban and Secondary systems, we feel that program responsibilities should be transferred to state and local governments. The principle advantage is that local governments are far more knowledgeable about their specific needs and problems and could address those needs without federal controls or restricted funding categories. The disadvantage is that new local revenue sources would have to be identified or some existing federal revenues would have to be turned back to state and local governments for this purpose.

2. The existing federal aid highway program does not have sufficient flexibility to meet the different needs of the growing southwest (and southeast) and the established northeast. However, if federal program responsibility is redefined as proposed above, sufficient flexibility will be provided at the state and local levels to meet these different needs.

3. There are many reasons why highway pavement is deteriorating at a faster rate than expected. These reasons include weight limits which have increased since the pavement was designed; unusually severe weather conditions including abnormal heat, cold and rain; traffic volumes far in excess of original projections; and reduced quality of pavement components, particularly asphalt.

4. We support the philosophy of returning to the more equal federal/state partnership, but recommend that the change be accomplished through a redistribution of program responsibilities as explained above, rather than a change in the federal participating share. If federal responsibility is limited to those programs which are particularly significant to national interests, then a high federal share is reasonable.

5. It would be helpful to designate the Department of Transportation as the lead agency when several agencies requirements are involved in a project. However, the greatest reduction in federal regulations and red tape would result from a redefinition and redistribution of program responsibilities as described above.

6. Federal aid highway categories should be changed as recommended in our answer to question #1.

7. We favor the expansion of the 3R program to include reconstruction on the Interstate and federal aid Primary systems.

8(a). Florida supports removing some items from the Interstate cost estimate and making them eligible under an expanded 3R program.

(b). We recommend removing all items not directly related to completion of segments not currently open to traffic. The only exception to this recommendation would be currently authorized HOV lane additions to the system. We believe that in the interest of energy conservation, these HOV lanes should continue to be eligible for Interstate construction funds.

(c). Yes, we do believe the 1983 and 1986 deadlines should be adhered to. This will obviously require a substantial increase in construction funds. However, with the shift in eligible items in the cost estimate and the reduction in federal program responsibility recommended in the answer to question #1, significant funds should be available to increase Interstate construction.

(d). States which have essentially completed Interstate construction should not continue to receive an apportionment in that category. Florida and certain other states with incomplete Interstate segments have contributed substantially more to the federal Highway Trust Fund than we have received in federal highway apportionments. These funds were used to complete the Interstate system in many other states. There is no logical reason to continue subsidizing those states after completion of the Interstate system. The "donor" states can use those funds much more effectively to complete their remaining Interstate segments.

(e). We do not believe that the Highway Trust Fund has sufficient funds to finance Interstate substitution projects and it should not be expected to do so.

9. At first glance, it would appear that general revenues could provide the increased funds needed for the federal highway program. However, continuing federal deficits and concerted efforts to reduce federal expenditures would make the highway program an obvious target for budget cuts. This is particularly true because the highway program is one of the few "controllable" components of the federal budget and has already been subjected to budget cuts despite its Trust Fund status. Of course the biggest current disadvantage of the Highway Trust Fund is the fact that insufficient revenues are flowing to the fund to support the necessary program levels. Reduction of federal program responsibility as described in our answer to question #1 should allow the Trust Fund to support the remaining programs at more appropriate levels without the need to request additional general revenues. However, in order to address the problem of declining revenues to the Trust Fund, it will still be necessary to convert the present 4¢ per gallon tax to a percentage of motor fuel price. This would partially offset the impacts of inflation and reduced motor fuel consumption. The most important advantage of the Highway Trust Fund is the fact that it provides contract authority which is essential to programs requiring multi-year funding commitments. Loss of contract authority would have a devastating affect on the highway program.

10. In Florida, the only significant factor causing delay of completion of the Interstate highway system is insufficient funding. We have met the requirements for the 1983 deadline, and we have the production capability and construction capacity to meet the 1986 deadline if sufficient funds are available.

11. Restructuring of the Interstate cost estimate, establishment of the 4R fund and reduction of federal program responsibilities should allow adequate funding for Interstate construction and 4R. However, it is essential that the Interstate cost estimate remain the basis for allocation of Interstate construction funds. Those states with significant remaining mileage should be allowed to benefit from an increasing relative share of the total construction fund. 4R funds should be available to all states on the basis of lane miles and traffic volumes. Florida has a significant interest in and need for 4R funds. Although Florida has more Interstate miles yet to complete than any other state, we also have more miles open to traffic then most other states and we have substantial 4R needs on these open segments.

12. Yes, Highway Trust Fund revenues should be increased. We recommend that the current motor fuel tax of 4¢ per gallon be converted to a percentage of price (either wholesale or retail) to partially offset the impact of inflation and reduced consumption.

13. Yes, there is difficulty raising highway revenue taxes, or any other taxes for that matter. However, we anticipate legislative action to substantially increase state transportation revenues in the near future. If the federal government provided higher funding levels for federal aid programs, Florida would provide corresponding increases as long as the federal increases were in program areas important to Florida. Existing Florida Statutes require the Florida DOT to match all available federal aid. If the federal tax became an indexed tax, this would undoubtedly make it more difficult for the state to raise its own tax. However, we anticipate indexing the state tax before the federal government takes such action. We do not recommend that the federal government cut back its funding, but rather that federal program responsibility be diminished as discussed in our answer to question #1. Even though the federal government will have reduced program responsibility, funding levels in the programs remaining under federal jurisdiction should be increased to compensate for significant losses to inflation in recent years.

14. We believe that the federal, state and local governments should share responsibility for the bridge replacement and rehabilitation program. However, because of the extraordinary magnitude of the problem, the federal government should maintain a dominant role until substantial progress has been made toward the goal of reducing the backlog of structurally or functionally deficient bridges.

15. Reduced federal program responsibility as proposed in this paper should result in a relative increase in federal aid Interstate and Primary funding. This should substantially reduce the current problem resulting from different spending rates by the states in the numerous federal aid highway categories. Florida opposes any mechanism that would slow its highway program. Because of our explosive growth in population and continual high levels of tourism, our efforts to expand our highway system and increase capacity of existing facilities lag far behind the need. First-come/first-served mechanisms tend to reward states that efficiently manage their highway programs, and we support these measures. Florida is currently requesting significant increases in state funding to help address our highway needs and we will continue to aggressively support and pursue the federal aid highway construction program.

STATEMENT OF
THOMAS D. MORELAND
COMMISSIONER
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

BEFORE THE

SUBCOMMITTEE ON TRANSPORTATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

AUGUST 19, 1980

REGARDING

FEDERAL-AID HIGHWAY AND HIGHWAY
REVENUE ACT OF 1980

Mr. Chairman and members of the Committee, I am Tom Moreland, Commissioner and State Highway Engineer of the Georgia Department of Transportation. I am pleased to be able to discuss with you some of my thoughts about the proposed Federal-Aid Highway and Highway Revenue Act of 1980. I would like to commend your Committee for starting the process for new highway legislation. It is a good beginning and an excellent framework which I hope will provide some innovative and needed changes in the Federal-Aid highway program. I am pleased that you will listen to and consider comments and suggestions from several States on this proposed legislation.

The consideration of this Act comes at a very critical time in the development and operation of our highway system. Georgia, along with the other States, is trying to complete the Interstate highway system. We and all of the other States are rebuilding and rehabilitating the older completed sections of that system which are functionally and structurally obsolete as fast as we can. At the same time we are trying to improve the fuel efficiency, safety and other operating characteristics of the other Federal-Aid systems as well as the non-federal-aid systems. All of this is being done while revenues for highway purposes are declining and double digit inflation is shrinking the effectiveness of the funds available. This proposed Act will be of great help to the States toward accomplishing those tasks.

Senate Bill 2913 proposes to increase the authorization for the Federal-aid primary and secondary systems a modest amount. That increase is needed and I am sure it will be welcomed by all of the States.

There is one on-going program which is not mentioned in S.2913 which should be continued. It is the priority primary program. This program was started several years ago by Congress and should not be sudderly halted before the necessary work on the system has been completed. Georgia is very appreciative of the few dollars we have received under this program and we have been able to use those funds rather effectively on an important project. It would be a shame to stop this program short of completion. The system is very popular in those areas where it is located and a lot of expectations will go down the drain if it is not completed in a reasonable time.

The proposed increase in the Interstate system resurfacing authorization will be well received by all of the States I am sure. My travels around the nation have shown me that many of the older sections of the Interstate system are deteriortating and becoming functionally obsolete faster than some States are financially able to handle. This Act will help solve that nationwide problem.

Amending the Interstate 3R program so as to provide for reconstruction is a good step as is changing the apportionment ratio so as to give more weight to vehicle miles traveled. Age alone is not the major factor which wears out a road but instead it is the amount of usage to which that road is subjected. This change is a step in the right direction.

Much of our Interstate system in this nation was designed and built to handle fewer and lighter weights than we are now experiencing. One of the results of the rail and truck deregulation acts is that there are more and heavier vehicles using all of our road systems. Trucks are now permitted to haul in both directions and are not required to return empty. Rail abandonments are forcing freight to be hauled on highways. Because of energy constraints and cost of fuel, trucks are loading closer to their legal limits and therefore the average truck now tends to be heavier than just a few years ago. Heavy weights and the number of times that those heavy weights travel over a road are what wear out a road faster than would normally be expected. The wear on a road is not in direct proportion to the weight of a load. A 40 ton load does not cause twice as much wear as a 20 ton load does. It causes many times more wear. Maybe we could find a way to apportion 4R funds based upon the number of heavy loads traveling upon the road.

We appreciate the thought behind the idea of increasing the Federal share for the Interstate 4R program from 75% to 90%. However, quite frankly, unless there is to be a major increase in funds available for apportionment, the program may not be adequate. In my opinion, it would not be inappropriate for the matching ratio to remain at 75% in view of the States traditionally strong role in rehabilitation.

Section 109 of the Bill proposes to eliminate the requirement that a State must obligate all of its apportioned funds before it is allowed to go into construction in advance of apportionment. I certainly support this proposal.

The proposed increase in the Bridge Replacement and Rehabilitation Program and its extension until Fiscal year 1982 is quite proper and necessary. It will take many years for this program to accomplish its goals. The States capacities to implement this program have been steadily increasing since its inception and to suddenly reduce the funding by 30 percent for the fiscal year 1982, as was done in the Surface Transportation Assistance Act of 1978, makes little sense.

The Bill calls for the bridge replacement apportionment for fiscal years 1982 and 1983 to be based on a new cost estimate which is to be prepared by the Secretary of Transportation by July 1, 1981. This is good but overdue. The Bill appears to have eliminated the apportionment for fiscal year 1981. If I am correct in my interpretation, this may need some attention.

At this point, I have a suggestion which I feel should be considered. The bridge replacement apportionment should be based upon some factor or factors other than cost to complete. Cost to complete factor tends to promote opportunism and arbitrary decisions by the Federal Highway Administration about what to include. That method also tends to reward those States which are not getting much done, and therefore have a large cost to complete, and it punishes those States which get their bridges in good repair.

Here is another suggestion which will speed up the bridge replacement program. A State which has obligated all of its regular highway bridge replacement and rehabilitation program funds should be allowed to use discretionary funds for bridges which cost less than ten million dollars. I believe that this will be more equitable to all the States since many States don't have a ten million dollar bridge but do have many smaller ones which need replacing.

The requirement of the Bill which calls for 30 percent of a State's Interstate apportionment to be used to complete sections not open to traffic will probably encourage some States to work toward completing the system where otherwise they may not be so inclined. That feature of the Bill is good. It is imperative that if a State has no sections of the Interstate system which are not open to traffic that such State be exempt from the requirement to use 30 percent of its apportionment on such sections. I urge you to keep this feature in the Bill. Don't penalize those States which have been aggressive in completing the system.

There is one program which I believe is doing a great deal toward fuel conservation. That is the carpool and vanpool program. We have constructed several parking lots where carpools and vanpools can assemble or where drivers may leave their vehicle and take a bus for the remainder of his trip. However, we have a problem with the Federal Highway Administration's interpretation of the rules. They will not permit Interstate funds to be used to construct park - ride lots unless they are in effect served by existing fixed route fixed schedule public transit service. Generally, where a park - ride lot is needed most there is no such bus service. The legislation should contain language which permits the costs of park - ride lots located adjacent to or near the Interstate system and whose principal effect will be to increase the capacity of that system by encouraging the use of buses, carpools, vanpools or other means of shared ride transportation to be paid for with Interstate funds.

One other feature which is needed in the area of carpools and vanpools is the authority for eligible carpool and vanpool programs to utilize third party service providers for that service. We would like to try this. I believe that may be an effective way to provide that service.

I feel that the States can obligate a great deal more than the 9.5 billion dollars ceiling which this Act imposes upon the program. The work is certainly needed and justifiable. A higher ceiling would also help fight the problem which we have with inflation by getting projects underway before inflation takes a bigger bite. In addition, this is a ready made, already existing and underway program to provide jobs quickly. I understand the Administration is going to propose some new programs to add millions and millions of jobs to aid our economy. This would be an excellent vehicle to help accomplish that goal.

It appears to me that the timing is right to change from a fixed four cents per gallon fuel tax to an ad valorem tax as is proposed by Title II of the Bill. However, it occurs to me that a rate of four percent of average wholesale price is not enough. The price of fuel will have to increase quite a lot from the current price in order to make a significant difference in the amount of money going into the trust fund. When considering expected inflation, gasohol exemptions, declining use and more fuel efficient vehicles perhaps the rate should be five percent of the average wholesale price.

Each year the Interstate system gets closer to completion from a "miles remaining to be constructed" point of view. However, the cost to complete does not get less each year. At this point in time the cost to complete the remaining five percent of the system is as great as the original estimate for the whole system. We all know that this has been caused by raising the standards and by inflation. This phenomenon has caused many to feel that the Interstate system will never be completed.

While such may be the case in some States, I assure you that it is not the case in Georgia. We are prepared to and can deliver a completed Interstate system in Georgia as dictated by the time requirements outlined in the Surface Transportation Assistance Act of 1978. However, we will not be able to do that under the provisions included in S.2913. Section 106 of the proposed Act will reduce our apportionment to the point that we probably will not be able to ever complete the necessary Interstate construction in the Atlanta area.

I am sure that there are other States which have the same or similar situations. We have based our programming, surveys and designs upon the dedication to complete the Interstate system according to the funding levels, schedules and requirements which came from Congress in the 1978 Act. I urge you to include the necessary provisions in this Act which will allow those States who wish to do so, such as Georgia, to complete their Interstate system.

It appears that the method used to complete the Interstate system in Section 106 tends to penalize those States which have been aggressive in completing the system in recent years.

I would like to propose a better alternative. One which would achieve the goals of completing the Interstate system, beat high rising inflation and prevent project escalation and system expansion.

Certainly something needs to be done to set a deadline on any further increases in the cost of the system. The proposed alternative would freeze the system with the 1981 Interstate cost estimate. No other construction element could be added that is not included within that estimate. This will prevent project escalation and system expansion.

Every element should be under construction by a certain date whatever that date may be. The alternative further proposes to require every element that is to be constructed as a part of the Interstate system to be under project agreement or advance construction project agreement by a certain date such as September 30, 1984. A State should be allowed to construct a project included in the cost estimate even if it has no apportionment remaining at that time.

The States would be allowed to use advance construction procedures and sell bonds in order to get those elements under construction at a much earlier date than would be allowable under normal appropriations. When a State chooses to use this method to hasten the completion of the system those projects should remain in the cost estimate beyond the cut-off date until the ACI (Advance Construction Interstate) is repaid. Beyond the cut-off date, normal appropriations would be used to pay off the advance construction bonds including the interest on those bonds. This will complete the system while beating the high rising cost of inflation since bond ACI would get everything under construction quickly without having to stretch it out for a longer period of time. Section 115 of Title 23 would need to be amended to provide for the bond interest paybacks and inclusion of interest cost as an element in the Interstate Cost Estimate.

Section 122 of Title 23 (Payment to States for bond retirement) provides for the payment of the principal and interest on bonds sold to advance construct Interstate projects. However, it does not provide for a commitment of Interstate funds through the period as Section 115 does. Section 122 should be amended to provide this commitment so as to encourage utilization of this section. Section 122 should also state that interest cost may be included in the Interstate cost estimate.

I believe that such a proposal will meet the desirable goals that it is intended to achieve.

There is much more to this matter than simply being able to say that we have a complete Interstate system. Access to and from Atlanta will be seriously jeopardized if we cannot complete our proposed system. The system in Atlanta is designed to tie into and mesh with our new rapid transit system and includes specific accommodation in the highway system for high occupancy vehicles. The Interstate and transit systems are designed to enhance each other. Atlanta's downtown cannot expect to survive without the combined completed Interstate and transit system.

Future legislation should recognize a state's efforts, especially in urban areas, to accommodate high occupancy vehicles with dedicated lanes in the construction process, and I request that these lanes be eligible for Interstate funding when they lie along existing Interstate routes.

One final major point: The Atlanta Transportation Plan was formulated on the basis of a balanced transportation system between highway and public transit. The adopted Federally approved Transportation Plan for Atlanta eliminated proposed new freeways on new location in deference to a rapid rail transit system and a completed Interstate freeway system. The prospect of an uncompleted Interstate system will penalize Atlanta for seeking a balanced transportation system while other major urban areas are rewarded for adopting new freeways on new location into their transportation plans when they have little hope of being able to implement some of these segments and instead are relying on transfer provisions to use the funds elsewhere at a later date.

The United States Department of Transportation has, by administrative regulation and not by Federal law, required state departments of transportation and others to implement sweeping new Minority Business Enterprise programs. These new regulations completely disregard long standing state laws that require awarding construction contracts to the lowest bidder. Existing state laws have not been considered in developing the new regulations. It is my understanding that many States submitted written and verbal comments to U.S. DOT pointing out the conflicts with state laws. Those comments were completely ignored. In fact, a "Notice of Policy" published in the July 3, 1980 Federal Register states, "It is possible that in some cases a recipient could remain eligible for receiving Federal funds only if a state or local law were changed to make possible compliance with this regulation." There is no question but that this regulation will violate the low bid process. We do not object to a minority business enterprise program. However, whatever that program is we should not be forced to award a contract to other than the low bidder.

It is hard to imagine how, at a time when contractors in some States have been convicted of bid rigging and others have entered guilty pleas, that we could even consider a regulation that not only permits awarding contracts to other than the low bidder but actually requires that we do so. It is equally hard to understand how, at a time when Federal funds are more uncertain than ever before, we could consider implementing a regulation that will increase construction cost without having made any assessment of the economic impact involved. My State, and I am sure many others, finds itself in the position of being told by U.S. DOT to implement the Minority Business Enterprise program in a certain way or lose Federal funding, while on the other hand, being told by the State's Attorney General that such procedures are illegal.

It is my understanding that the recent Supreme Court ruling in the case of Fullilove vs. Klutznick addressed the question of Congressional Authority to legislate Minority Business Enterprise quotas for specific classes of contractors but did not address the authority of the Executive Branch to establish quotas by Administrative Rules and Regulations. I believe this question should be considered by Congress in order to prevent a disruption of Transportation programs in the various states. The intent of Congress in this matter should be spelled out in S.2913.

Mr. Chairman, this completes my testimony. I shall be happy to answer any questions which you may have or to discuss further any portion of the testimony.

Department of Transportation
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THOMAS D. MORELAND
COMMISSIONER
STATE HIGHWAY ENGINEER
EMORY C. PARRISH
DEPUTY COMMISSIONER

HAL RIVES
ASST STATE HIGHWAY ENGINEER
DANIEL O. KELLY
TREASURER

September 8, 1980

Mr. Paul Chimes
Committee on Environment & Public Works
Dirksen Senate Office Building - Suite 4204
Washington, D. C. 20510

Dear Mr. Chimes:

I have received correspondence from Senator Lloyd M. Bentsen and Senator Robert T. Stafford posing questions concerning the hearings being held on the Federal-Aid Highway and Highway Revenue Act. I am happy to provide my answers to those questions.

1. Do you think it is better for the Federal Government to continue its current level of highway funding or to change it in some way. Should Federal funding increase or decrease? Please comment on which programs should be expanded, and which ones should be cut back.

Answer: I think the Federal-Aid Highway Program must be increased. Our desire to promote other forms of transportation has lulled us into a level of funding with local, state and federal sources insufficient to provide the appropriate service level for highway transportation in the United States. We have become so accustomed in this country for the Federal Highway Trust Fund to set the pace that any shift of responsibility from the Federal Government to the state and local governments must be done gradually, even if justified. I recommend increasing the funding level for the following programs:

a. Interstate Rehabilitation.
b. Bridge Replacement.
c. Federal-Aid Primary (or at least Federal-Aid Primary Extensions in Urban Areas).
d. Either a new program to fund Energy Efficient Improvements on the Public Road System should be started up or some sort of bonus offered to States which use their present categorical funds for such purpose.

1a. What do you believe the Federal interest is in the Federal-Aid Urban and Secondary Systems? What would be the advantage or disadvantage of the States and localities assuming total responsibility for this program?

Answer: The Federal interest here will relate only to some tasks not being performed by the state and local governments. The only tasks I think appropriate for these two systems is the bridge replacement task. I frankly would have no problem in phasing out these two Federal Aid Programs and returning them to the state and local governments. For example, in Georgia, we have the Local Assistance Road Program (LARP) which has been a great benefit for these two systems. Our two largest local governments, DeKalb County and the City of Atlanta, have been able to practically cease funding for resurfacing of local roads as a result of LARP. We have meshed the Urban and Secondary System funding into the program. If the Federal Government is to withdraw from any present Federal highway task, this would be the place to start.

2. It appears that there are different issues facing the growing Southwest and the established Northeast. Do you believe the structure of the Federal-Aid Highway Program has sufficient flexibility to meet the needs of this diverse country? Are there things which should be done to make it more flexible?

Answer: The Federal Government cannot solve all problems for state and local governments and should not try. There are certain relatively minor changes which need to be made in the Federal-Aid Program. For example, rehabilitation funds should be more closely tied to truck traffic and I doubt the wisdom of continuing the Bridge Replacement Program on a cost to complete basis. However, I have no recommendations for major structural changes in the Program due to different issues in the various regions of the country.

3. There seems to be agreement that certain segments of the highway system are deteriorating at an alarming rate. Some of these segments are reaching their design life. However, it appears that significant deterioration is also occurring on newer sections. Do you have any indication as to why pavement is not holding up? If not, are there any efforts underway to find out what the problem is?

Answer: Deterioration of the Interstate Highway System in the United States is a national problem. If not halted and significant progress made in the next two years, it is going to be a disgrace to the highway program of the country and the various states. There is, in my opinion, no practical and theoretical based formula and system for designing a perfect pavement system. The variables involved so far have proven so illusive that experience is really the best guide. The country's experience in the 40's and the 50's with concrete paving did not sufficiently prepare the industry to construct an Interstate highway system to be subjected to the numbers and weights of truck traffic to which this system has been subjected. Asphalt pavements have also given problems but they were not unexpected. The problems encountered with Portland cement concrete pavements were unexpected but are explainable if one carefully analyzes the number of repetitions and the weight of truck axle loadings. There has literally been an explosion of truck weight primarily due to the great advantage the Interstate Highway System has given truck freight.

4. Currently, the Federal share for most Federal-Aid Highway categories is 75% or more. There has been a substantial increase in the Federal share over the past few years. What do you believe would be the advantages and disadvantages of returning to a more equal Federal-State partnership, for example 50/50?

Answer: The greatest advantage would be an increase in the total Program. Initially states would not be able to match Federal-Aid but surely governors and state legislators would react to the situation and raise sufficient revenue over a period of time. I think it is detrimental to the total Program to continue to raise the federal share of the program unless the federal government is willing to increase the size of the program to keep pace with inflation.

5. States and localities continue to express frustration over increasing Federal regulations and red tape. Are there any specific areas where these problems can be reduced or the process made more efficient? For example, would it be helpful to designate the Department of Transportation as the lead agency when several agency's requirements are involved in a project?

Answer: Section 4(f) of the Transportation Act and Section 106 of the Historic Preservation Act have identical requirements where historic properties are involved with transportation projects, the only difference being that Section 4(f) requires five times longer to process. The U.S. Department of Transportation could eliminate this duplication and waste by recognizing and accepting compliance with the Historic Preservation Act in their regulations DOT Order 5610.1C.

6. There has been a proliferation of Federal-Aid Highway categories in the past. All were originally established to address a specific problem, but many of these categories could probably be consolidated or made eligible for funding through the major Federal-Aid categories. Others could be returned to the States. Would you support such an approach, and how would you go about consolidating and eliminating categories. Specifically, which existing categories could be consolidated, eliminated, or returned to the States?

Answer: I support a reduction in the number of federal-aid highway funding categories. I recommend the funding categories be reduced to four basic:

Interstate, primary, bridge rehabilitation and replacement, and safety. The Interstate category would include both regular Interstate construction and Interstate 3R programs. The primary would include both the consolidated primary and the priority primary programs. Bridge replacement and rehabilitation would include on-system, off-system and discretionary programs. Safety would include all presently defined safety programs.

The rural secondary, urban systems, metro planning, economic growth center, forest highway, off-system, and other miscellaneous categories would be returned to the state to administer. The states would retain a portion of the federal gas tax to administer these programs.

7. Would you favor the expansion of the 3R Program to include reconstruction? On only the Interstate System or on all Federal-Aid Systems?

Answer: I would favor the expansion of the 3R Program to include reconstrution provided it did not severely reduce the funding for the regular Interstate construction program or cause elements to be removed from the Interstate Cost Estimate. I would, in any event, limit the reconstruction to the Interstate System. There are already categories for the other Systems.

8. With 98% of the Interstate System open to traffic or under construction, the 1979 Interstate Cost Estimate shows that the remaining cost-to-complete is now $50.75 billion. Despite continuing Interstate construction apportionments, that amount will continue to increase so that under the current program the cost-to-complete will be over $42 billion in 1990. Clearly the 1983 and 1986 deadlines in current law cannot be met unless some changes are made.

(a) Would you support removing some items from the cost estimate and making them eligible under an expanded 3R program?

Answer: No. This is a contract between the Federal Government and the States and many actions have been taken based on the inclusion of these elements in the Interstate Cost Estimate. It is breaking a pact with the States, it is not showing good faith and it should not be done. I would support freezing the Interstate Cost Estimate where it is. That is, add no other elements to it.

(b) What Items, do you believe, should be moved to the 3R Program?

Answer: None.

(c) Do you believe the 1983 and 1986 deadlines should be adhered to?

Answer: Absolutely. This is the reason the program is out of control.

(d) Should States which have essentially completed Interstate construction continue to receive an apportionment in that category?

Answer: Yes. The one-half percent is still appropriate.

(e) If Interstate segments are withdrawn from the Interstate Cost Estimate, do you believe sufficient funds will be available to finance substitution projects? Should highway substitution projects be funded from the Highway Trust Fund?

Answer: No. Not in my opinion. To cut elements out of the Interstate System and then to fund expensive substitute projects is "funny money."

9. What do you see as the advantages and disadvantages of financing the highway program from general revenues rather than a trust fund?

Answer: The Highway Program would probably be better in dollars from the general fund at present, however, the road user funding concept has served the Nation well. I would rather see the Highway Trust Fund continued and the funding modernized.

10. In those States where the Interstate System is incomplete, are there any factors other than inadequate funding that are causing delays? What can be done to eliminate those delays?

Answer: If factors other than funding are delaying projects at this time, then serious questions concerning whether the segment should be built exist. These unbuildable segments should be eliminated through the 1983-1986 deadlines.

11. Should the Interstate Program be restructured so that there are, in effect, separate programs to address the vastly differing needs of States which are finished, and those with segments left to do?

Answer: The Interstate Program should be expanded or should be brought to some reasonable conclusion. It should not be piecemealed out by cutting selected elements from the Interstate Cost Estimate. The basic problem is using a cost-to-complete system of apportioning funds for the Interstate. We are about to make the same mistake again with the Bridge Replacement Program.

12. Do you think that the revenue going to the Highway Trust Fund should increase? If so, what method of increasing revenues do you think most appropriate?

Answer: The revenue must increase if the Federal Program is to continue to bear the same role or anything close to the role it has for the past 20 years. I would favor changing the per gallon tax to an ad valorem tax, however, I do not believe 4% is adequate.

13. Do you find in your States that there is difficulty raising highway revenue taxes? If the Federal government provided higher funding levels for the Federal-Aid programs, would there be corresponding increases by the States? Would there be any effect on your State effort if the Federal tax becomes an indexed tax? What kind of Federal increase would have the least effect on the States? Or, do you think that the Federal government should cut back on its funding as revenues drop, and let the States take a greater role?

Answer: There is great difficulty in raising highway revenue in our State and in most States with which I am acquainted. Legislative bodies simply do not like to raise taxes. If the Federal Government provided higher funding levels, there would be, in my opinion, a corresponding increase in our State. I would favor an indexed tax and think that if the Federal Government takes such a step, most States will follow suit.

14. Please comment on what you believe the Federal, State and local role should be regarding the replacement and rehabilitation of bridges both on and off the Federal-Aid System.

Answer: I think this is primarily a task which should have been addressed by the state and local governments using their own resources and those available through the Federal-Aid Program. However, the fact that this did not occur must be considered. With the current state of bridges in the country, I think a Federal Bridge Replacement Program is justified until the crisis is past.

15. Traditionally, States have obligated highway funds on a first-come, first-serve basis. As long as the States' collective obligation of funds was below the obligation ceiling, there was no problem. This was not the case during the past two years and most likely will not be the case in the near future. How should the Congress address this problem? Do you prefer a first-come, first-serve mechanism which tends to reward fast obligating States? Or would you prefer that a certain portion of the actual obligation authority available be reserved for each State?

Answer: The most desirable system would be to have the Obligational Authority equal the Authorization levels. If this is not possible, I favor a first-come, first-serve basis.

16. Please give us your view of the ACI program (Advanced Construction). Please comment on ACI as related to the continuing program.

Answer: I support the continuation of the advanced Interstate construction program. I would recommend the law be revised to allow a state to sell bonds to finance an ACI Program with the provision that both principal and interest be eligible for reimbursement under the Interstate program as now included in Title 23 U.S.C. Sections 115 and 122. This would allow many states to complete the Interstate system earlier than would otherwise be possible and would help against the effects of inflation.

17. In your testimony, you describe the situation where a four-lane Interstate Highway is to be upgraded to an eight-lane highway. Would you explain why the lane additions should be a responsibility of the Interstate Program, and why it could not be included in another program.

Answer: Because the particular highway I described is I-85 extending from the core of Atlanta to I-285 in DeKalb County. The highway is carrying approximately 100,000 vehicles per day on four lanes. It is unsafe and is congested. I don't believe there are any other sections of four-lane Interstate in the country with that much traffic. The geometry of the highway is poor and there are no acceleration or deceleration lanes. The highway was designed in the late 40's and early 50's. The majority of the highway was built prior to the Interstate System and had no Interstate funds incorporated into it, but the road was incorporated into the Interstate System. The remainder of it was built in the very early stages of the Interstate System. At that time, regardless of the projections for growth and traffic, [illegible] guidelines of the Bureau of Public Roads limited the number of lanes according [illegible] the size of the City. We were limited to four lanes due to the size of Atlanta. (A copy of this memorandum is attached). In addition, a whole new highway system, including Interstate I-485, was abandoned because we felt I-85 could be improved so as to be able to handle the diverted traffic with Interstate funds and we would have less community impact. To cut these elements from the Interstate Cost Estimate now would be undoing decisions made during the entire last decade. These decisions were made with the expectation and indeed the promise that Interstate funds would be available for the reconstruction of I-85. The project could not and would not be done without Interstate funds.

Yours very truly,

TDMoreland

Thomas D. Moreland

TDM:rje

Attachment

cc: Senator Lloyd M. Bentsen
Senator Robert T. Stafford

Excerpted from: Instruction Manual For Preparation and Submission of Revised Estimate of Cost of Completing The Interstate System

For the purpose of this estimate the basis for selection of the appropriate classification of the highway location, (that is, either urban or suburban or rural) and the resultant value of lane capacity for such classification, shall be based on the characteristics of the area adjacent to the sections of the Interstate System highways as these characteristics are anticipated to exist in 1975. For any section of highway in an area anticipated to become urban in characteristics by 1975 the higher lane capacity values that are associated with the lower average running speeds for freeways in built-up or urban areas shall be used.

Excepting as modified in "Number of Traffic Lanes" following this item, when the volume of traffic as forecast for the directional DHV (1975), divided by the appropriate lane capacity value as derived from the tabulation results in a figure of N-full traffic lanes plus a fractional traffic lane, if the fractional portion is less than 0.5 and the State highway department recommends and the Bureau's division engineer concurs that N + 1 lanes be provided, the estimate may be based on the provision of N + 1 lanes only if after review of the data, the Bureau's regional engineer concurs in the larger figure. In cases where the decision is to estimate on the basis of N lanes rather than N + 1 lanes, the other features of the work to be estimated should, if reasonable, be so planned that the additional capacity could be provided at a future date, if subsequently found to be necessary.

Number of Traffic Lanes.

1961 Estimate for city pop. only - not urbanized area pop.

In 1975 the number of lanes in cities exceeding 1 million population shall not exceed 8; ~~for cities in the population range~~ of 400,000 to 1,000,000 shall not exceed 6; and for cities under 400,000 inhabitants shall not exceed 4. (Population references are to the ~~estimated 1960 population~~.) Exceptions to this can be made only when they meet approved engineering standards for efficient operation and are specifically approved by the Bureau of Public Roads in Washington, upon recommendation of the regional engineer, in keeping with the basic objectives of the National System. As a guide in making their review, the division and regional engineers, in addition to the normal tests of traffic assignment methods, volumes, and lane capacities, shall determine that the exception is based upon all or such of the following considerations as are pertinent to the case:

(a) Whether alternative forms of transportation, as outlined in local transportation studies, would provide a more effective or more efficient solution.

(b) Whether other present or proposed highway facilities adequately serve the needs for which the Interstate lanes are proposed.

(c) Whether it is feasible to provide other traffic engineering and traffic control measures as a solution to the problem within the physical limitations of the existing and generally parallel highways.

(d) Whether all other highways, present and contemplated, will be operated at their design capacity in 1975.

(e) Whether the cost of improving other highways within the corridor would be more economical than adding extra lanes to the Interstate System.

Frontage Roads.

The estimate is to include the cost of frontage roads when frontage roads are an essential part of the design of the Interstate highway section in conformance with the "Guide for the Application of Frontage Roads on the National System of Interstate and Defense Highways" as approved by AASHO Executive Committee in November 1956, and adopted for use on the Interstate System by the Bureau of Public Roads, January 8, 1957.

The determination of need for frontage roads as an essential part of the design of the Interstate highway section will be determined in most instances by the decision to develop the highway on existing location or on new location. Where the decision is made to construct the controlled access highway on an existing location where direct access from abutting property was available, it is necessary to either provide frontage roads as a means of obtaining control of access or the access rights of the abutting property owner must be purchased. The most economical method is to be used. Where an Interstate highway is developed on new location no inherent right of access belongs to the adjoining property owner and frontage roads therefore need not be provided for the sole purpose of controlling access. On new location, frontage roads should be provided only where economically justified for one of the following purposes:

(a) For the purpose of connecting an otherwise land-locked parcel with a public road.

(b) To reestablish continuity of an existing highway intercepted by the Interstate System.

(c) To reestablish connection between two portions of a property severed by the Interstate highway.

Viaducts in Urban Areas.

In the case of Interstate highway viaducts in urban areas, costs for improvement or provision of parallel surface level streets are not to be included in the estimate. Such streets are not necessary for control of access on the Interstate viaduct and they function primarily as a part of the local street grid which is little disturbed. Where a street intersection or the remainder of a block is to be modified as a part of terminals of ramps to or from the viaducts, the costs may be part of the estimate. Where any such viaduct utilizes the ROW of an existing street, adjustments for viaduct column construction may be included in the estimate.

Costs to provide parking areas or connections thereto under a viaduct or over a depressed freeway are not to be included in the estimate.

Commentary by Secretary R. E. W. Crisman to
Committee on Environment and Public Works
United States Senate
August 19, 1980

Re: S. 2913 Federal-Aid Highway and Revenue Act of 1980

Thank you, Mr. Chairman.

For the record my name is Ronald E. W. Crisman, and I am Secretary of the State of Vermont Agency of Transportation. As such I am the chief administrator for a Transportation Agency which plans, constructs, operates and regulates all modes including highway, rail and air. It is my pleasure to appear before you in regard to S. 2913 to present the views of a small state. As a small state, we have relatively the same problems and the same opportunities as are being faced today by all of the states and the federal government. I am extremely gratified at the opportunity to discuss this important issue with you.

I would like to express my appreciation for the foresight evidenced by Senator Bentsen in offering this legislation at this opportune time. The current federal highway program has a very short time before it expires and we view this legislation as the first step in the development of a Highway Program for the 1980's and beyond. The world is changing. Our values and priorities require adjustment to achieve a better fit in our current and future circumstances. High prices and inflation combined with the effects of recession and our fuel conservation efforts have resulted in most highway departments facing a virtually bankrupt treasury.

In light of this situation it is obvious that new directions must be chosen. These new routes must be chosen at a time when the future is not well lighted and the end of the road is dark -- yet we must take it. Our roads today are full of pot holes, both literally and figuratively.

S. 2913 charts a new route in many respects. It addresses FY 82 and FY 83. I would like to see the legislation expanded to cover the next succeeding four-year period ending with FY 87 and to turn this bill into major policy legislation which is what we all desperately need that we might more easily and accurately plan our future. Our state needs to know, and I believe every state needs to know, what the mid-term future has in store. It takes a certain amount of time to adjust our programs, to adjust the expectations of our administrations and our people and to make necessary adjustments to accommodate these changes.

Many, and indeed most, features of S. 2913 are highly desirable. I compliment those who drafted this bill for the wisdom of providing these features. Notably, it reaffirms and strengthens the continuing partnership between the state and federal governments. It recognizes the relative interest held at the different government levels in the various systems. The regional and interstate, or national, defense systems represent important links. We feel, as this bill indicates, that they should have a continued higher percentage of federal participation.

We note that the bill proposes an ad valorem fuel tax. We (the Agency of Transportation) do not administer the fuel tax in Vermont, but I can imagine that administration of an ad valorem tax will be more difficult than the usual gallonage fee. It occurs to me that projection of income from this sort of a tax base will also become more difficult than use of a gallonage tax. It does, however, provide the trust fund with income which will be relative to the worth of the dollar. For this reason, we do endorse the concept of an ad valorem fuel tax.

The bill introduces the concept of a 4th R category for the use of Interstate Resurfacing funds. The concept of reconstruction of the Interstate recognizes what all of us already know, and that is that the Interstate System is wearing out. It makes more sense to me to remove the root of a weed than to keep trimming off its top to control it. Similarly, it makes more sense to reconstruct an area that has a subgrade failure than to resurface it every year or so. Reconstruction at a 90 - 10 ratio is consistent with the designation of the highway as Interstate. This ratio was justified for the original construction and should be justified for reconstruction.

In line with this thinking, we consider that the continuation of Interstate Transfer authority and particularly the one-half of one percent minimum apportionment for undertaking construction and resurfacing is crucial to Vermont and, I believe, to other states. Let me explain. The Interstate highway system construction program imposed a considerable change on our Primary and Secondary construction programs to provide for the construction of connector highways and interchanges or for the relocation of highways to accommodate the Interstate. This required us, for several years, to commit both our entire federal aid apportionment for these systems plus a great deal of state funds. The result has been that improvements of many miles of our Primary and Secondary highways have been deferred as a result of Interstate construction. In essence we have left many areas by the wayside, and it is now necessary to pick up where we left off some 20 years ago. Continuation of this program is owed to the communities who have been patiently waiting for it. To accomplish this, it will be necessary to continue the minimum Interstate apportionment and the transferability to the Primary, Secondary and Urban Systems. I urge this be included in the bill.

It is not explicit in the legislation, but we note the elimination of some categorical expenditure appropriations. There is no problem with this, and we endorse it to a degree. Eliminating categories does simplify the management of our program. However, we need to be sure that flexibility is maintained through the legislation and the regulations which inevitably grow out of the legislation to allow the states to use available funds on these various projects or needs according to the priorities which are seen by the state. Obviously, limits on flexibility should be avoided so long as national objectives are met. This concept is consistent with the policies of the National Governors Association.

Allocation of funds based on a needs assessment appears to be in the thinking stage for a bridge program of the future. We don't object to a needs system so long as resource factors and regional impacts are included. In addition, we feel that flexibility should be afforded at the national level and some amount of discretionary funding should remain available. Our concern is that there should be some means provided to address regional and state issues. The allocation to more accurately meet needs concept again appears in regard to Interstate Resurfacing where the formula is revised to give greater weight to traffic volume as an element of the allocation. We suggest that you consider the introduction of climatic and subsurface soil factors, for it is obvious that most of the wear on the Interstate highway is due to weathering from extremes of temperature and the fact that they are rapidly being ground into small particles by heavy truck loadings. Congress has indicated that 80,000 lbs. should be the weight limit. We now find ourselves being expected to allow vehicles over this figure since the trucking industry has chosen to interpret this as their base rather than a ceiling. I strongly urge that the Congress incorporate in this legislation a clarifying provision which would indicate that 80,000 lbs is the absolute federally required ceiling weight for vehicles.

Flexibility at the state level today is really constrained. We would urge that you take a strong look at these constraints and remove or modify the regulatory factors which are delaying and adding tremendous cost to vitally needed programs. These issues are not addressed by S. 2913, but we feel that as a piece of landmark legislation it is in order that such major issues also be addressed. Environmental and social concerns are laudable, and we support the basic needs, but their costs, due to prolonged processes, are bankrupting our programs. Incremental cost increases are a direct result of the delay often found. These costs are not only in dollars for construction which are run up by the inflation factors due to delaying, but they also include the cruel loss of lives and human suffering as well as the adverse energy impacts which are due to operation on deficient highways. Vermont has the worst traffic fatality year to date in our history. Part of that represents increased traffic, but part is attributable to roads in desperate need of reconstruction.

We note a shift in thinking on the part of our engineers and administrators. We used to worry about achieving a minimum cost for a mile of highway and obtaining the biggest bang for the buck. We now are concerned about even getting to the bang stage and whether it is going to amount even to a small pop.

We urge the Congress to direct the U.S. DOT and FHWA to consult and confer with state DOTs and AASHTO when considering new or changed rules and regulations. It is time to get down to business and to build a road in a fraction of the twelve years it now takes us to work through the maze.

Even with no opposition, a highway project is threatened on every side and similarly so are the highway programs. In the state perspective the loss of federal funds is the more likely cause of program upset and one of the more onerous ways in which the state loses funds is through the penalty system. A state is at least threatened with refusal to apportion or the reduction of its allocation for not cleaning up its billboards, for not having an affirmative action plan, for not enforcing weight limits, for not enforcing speed limits, and for failing to meet a whole host of other administrative requirements. I disagree with this approach. We liken it to closing the door so the horses can't get in if they do come back. We urge you to reverse this approach, to provide an incentive for the program that meets a national objective. Other federal programs take this approach and we strongly urge the Committee to consider a change in this federal-state relationship from that of a destitute applicant to a happy partner.

In the present format, each rule change potentially imposes a cost on the states without the opportunity to share and even cooperatively discuss the financial and social impacts. In line with mitigating restrictions, Congress should address the implications of external loading of highway programs with costs such as MBE, Section 504 Access Requirements, Labor Protection, etc. These requirements put on the states a necessity to commit funds directly and indirectly which would not otherwise be necessary for accomplishing the program or projects. In many states the costs of indirect loading are helping to kill the programs, the beneficiaries are few, the justification is insufficient, and, if the objectives are to be satisfied, they should be met by direct targeted aid to the affected group in preference to weakening the transportation program. A guiding consideration would be to consider the unique and healthy differences that exist within the states, to not fashion a single solution but allow each state to best plan, build and maintain its transportation systems and at the same time address environmental, social and opportunity concerns with direct action programs which can be evaluated for accomplishment.

Mr. Chairman, in conclusion, I feel that S. 2913 represents some very forward thinking and most of its provisions will meet the need to better the national economy, to better provide for national defense and contribute to our achieving energy independence. There are changes which need to be made in this bill such as the continuation of Interstate apportionment and these we urge you to correct. There are additional philosophic issues that should be addressed in any blueprint for a future highway program. With the incorporation of features such as I have noted, we feel that this legislation could indeed become such a blueprint. Vermont will gladly help the Congress in its deliberations in any way needed. We appreciate greatly this opportunity to participate in the process.

Thank you.

VERMONT AGENCY OF TRANSPORTATION

STATE OF VERMONT
OFFICE OF THE SECRETARY
133 State Street, Montpelier, Vermont 05602

September 17, 1980

Senator Lloyd M. Bentsen, Chairman
Senator Robert T. Stafford, Member
Subcommittee on Transportation
United States Senate
Washington, D. C. 20510

Dear Senators:

We deeply appreciate the opportunity to testify on S.2913, the Federal Aid Highway and Revenue Act. I believe the bill and the Committee's decision to conduct early hearings are extremely important to the continuity of providing safe transportation for the country. You are to be commended for your concern and early actions to bring about the public debate on the issue.

I have attached the responses to the questions requested by your Committee. I would be most pleased to provide additional information if such is desired. Once again, thank you for the opportunity to participate in this important discussion.

Sincerely,

Ron Crisman

Ronald E. W. Crisman
Secretary

cc: Frank Francois, AASHTO
William Bulley, AASHTO

Questions for Mr. Ronald Crisman, Secretary, Vermont Agency of Transportation

1. Do you think it is better for the Federal government to continue its current level of highway funding or to change it in some way. Should Federal funding increase or decrease? Please comment on which programs should be expanded, and which ones should be cut back.

What do you believe the Federal interest is in the Federal-Aid Urban and Secondary Systems? What would be the advantages or disadvantages of the States and localities assuming total responsibility for this program?

2. It appears that there are different issues facing the growing Southwest and the established Northeast. Do you believe the structure of the Federal-Aid Highway Program has sufficient flexibility to meet the needs of this diverse country? Are there things which should be done to make it more flexible?

3. There seems to be agreement that certain segments of the highway system are deteriorating at an alarming rate. Some of these segments are reaching their design life. However, it appears that significant deterioration is also occurring on newer sections. Do you have any indication as to why pavement is not holding up? If not, are there any efforts underway to find out what the problem is?

4. Currently, the Federal share for most Federal-Aid highway categories is 75% or more. There has been a substantial increase in the Federal share over the past few years. What do you believe would be the advantages and disadvantages of returning to a more equal Federal-State partnership, for example 50/50?

5. States and localities continue to express frustration over increasing Federal regulations and red tape. Are there any specific areas where these problems can be reduced or the process made more efficient? For example, would it be helpful to designate the Department of Transportation as the lead agency when several agency's requirements are involved in a project?

6. There has been a proliferation of Federal-Aid highway categories in the past. All were originally established to address a specific problem, but many of these categories could probably be consolidated or made eligible for funding through the major Federal-Aid categories. Others could be returned to the States. Would you support such an approach, and how would you go about consolidating and eliminating categories. Specifically, which existing categories could be consolidated, eliminated, or returned to the States?

7. Would you favor the expansion of the 3-R program to include reconstruction? On only the Interstate system or on all Federal-Aid systems?

8. With 98% of the Interstate System open to traffic or under construction, the 1979 Interstate Cost Estimate shows that the remaining cost-to-complete is now $50.75 billion. Despite continuing Interstate construction apportionments, that amount will continue to increase so that under the current program the cost-to-complete will be over $42 billion in 1990. Clearly the 1983 and 1986 deadlines in current law cannot be met unless some changes are made.

(a) Would you support removing some items from the cost estimate and making them eligible under an expanded 3-R program?
(b) What items, do you believe, should be moved to the 3-R program?
(c) Do you believe the 1983 and 1986 deadlines should be adhered to?
(d) Should States which have essentially completed Interstate construction continue to receive an apportionment in that category?
(e) If Interstate segments are withdarwn from the Interstate Cost Estimate, do you believe sufficient funds will be available to finance substitution projects? Should highway substitution projects be funded from the Highway Trust Fund?

9. What do you see as the advantages and disadvantages of financing the highway program from general revenues rather than a trust fund?

10. In those States where the Interstate System is incomplete, are there any factors other than inadequate funding that are causing delays? What can be done to eliminate those delays?

11. Should the Interstate program be restructured so that there are, in effect, separate programs to address the vastly differing needs of States which are finished, and those with segments left to do?

12. Do you think that the revenue going to the Highway Trust Fund should increase? If so, what method of increasing revenues do you think most appropriate?

13. Do you find in your States that there is difficulty raising highway revenue taxes? If the Federal government provided higher funding levels for the Federal-Aid programs, would there be corresponding increases by the States? Would there be any effect on your State effort if the Federal tax becomes an indexed tax? What kind of Federal increase would have the least effect on the States? Or, do you think that the Federal government should cut back on its funding as revenues drop, and let the States take a greater role?

14. Please comment on what you believe the Federal, State and local role should be regarding the replacement and rehabilitation of bridges both on and off the Federal-aid system.

15. Traditionally, States have obligated highway funds on a first-come, first serve basis. As long as the States' collective obligation of funds was below the obligation ceiling, there was no problem. This was not the case during the past two years and most likely will not be the case in the near future. How should the Congress address this problem? Do you prefer a first-come, first-serve mechanism which tends to reward fast obligating States? Or would you prefer that a certain portion of the actual obligation authority available be reserved for each State?

16. Is there a seasonal concern with respect to highway construction that pertains particularly to States that are located in parts of the country which have freezing weather for part of the year? Does this affect your ability to obligate funds during the first months of the fiscal year?

17. In your testimony, you mention that it was your opinion that S. 2913 would do away with the transferability of Interstate funds to other accounts. This was not an intended result of the bill. What is it in S. 2913 that gives you that impression?

1. I recommend that federal funding be increased to compensate for the inflation. The interstate 3R program and the primary system apportionments should be expanded. Any reduction which must be made should be applied to programs clearly not of national interest. In general, I do not believe that there is a federal interest in the federal-aid urban and secondary systems other than a redistribution of wealth among states. If the states and local jurisdictions were to assume total responsibility for the urban and secondary programs, the advantages would be freedom of choice -- selection of projects and use of standards. The obvious disadvantage would be the inability of states and local jurisdictions to provide the necessary funding.

2. Given the broad array of highway programs, I believe there is sufficient flexibility to meet the varying needs throughout the country. One provision could make the system more flexible, and that is greater authority for transferability of funds between programs.

3. The deterioration to which you refer has not been occurring in Vermont. Granting that the problem does exist elsewhere, there are efforts underway to solve the problem, particularly those of the Transportation Research Board. Possible explanations are heavier loads in greater numbers, changes in asphalt, and the possibility that some states are in error in establishing the design life.

4. I see no advantage in returning to a 50 - 50 federal/state match. The burden of raising revenues through taxation would be shifted to the states. As a result, the size of construction programs would certainly decrease.

5. It might be helpful to designate the Department of Transportation as the lead Agency. I would suggest that federal agencies in general could place more reliance on approval granted by other agencies, and it certainly would be helpful if all federal agencies adopted the same regulations to deal with their perceived problems.

6. Until major decisions are made relating to the future of the Trust Fund and future funding, particularly with respect to a tax increase, I would urge that the categories remain as they are for the present time. Long term, it could well be beneficial that some consolidation take place. However, at that time some provision would be required to protect the smaller, poorer states.

7. Expansion of the 3R program to include reconstruction could only be accomplished by a large increase in funding, and before it is applied to all federal-aid systems, the decision referred to above should be taken.

8. (a) Yes.

   (b) The so-called interstate safety projects which basically are upgrading an existing facility.

   (c) Yes.

   (d) Yes.

   (e) No and no.

9. The only advantage to financing a highway program from general revenues is that all programs would be competing on their merits. The disadvantage, which is a major one, is the extremely long lead time required for highway construction. With no knowledge of future available funding, it would be difficult, if not impossible, to adopt a meaningful highway construction or reconstruction program.

10. I cannot speak for all states, but there are factors other than funding which have delayed completion of the interstate system -- environmental and social considerations for example. I do not suggest that these are not legitimate concerns. Possibly the delay could be reduced by combining applications and hearings for multiple permits.

11. This suggestion might be feasible, although the same purpose might be served by retaining transferability of interstate apportionments and retaining the minimum of one-half of one percent.

12. Revenues to the Trust fund should be increased. The per gallonage tax should be converted to an ad valorem tax.

13. Yes. There has been great resistance on the part of the General Assembly to increase highway revenue taxes. It is possible that a federal increase would encourage state legislatures to do likewise. A similar effect might occur from changing to an index tax. Probably the one cent per gallon federal tax increase would have the least effect on the states. If the Federal Government should cut back on its funding, leaving it to the states to increase their taxes, the smaller, poorer states such as Vermont would be faced with an intolerable tax increase. Like many, if not all, federal programs, the highway program up to this point has acted to redistribute wealth according to need. Whether this is a proper federal function can be and has been debated.

14. Replacement and rehabilitation of bridges with respect to the proper role of each level of government should receive the same treatment as all other transportation features, namely, is it of national interest, state interest, or purely local interest. In Vermont, at the present time, all three levels share the financial responsibility.

15. Vermont was willing to continue with the first come - first served mechanism or reservation to each state of a portion of a share of obligational authority or a combination of the two as long as prior notice (at least one year) be given.

16. There has been a seasonal concern with respect to highway construction which has affected our ability to obligate funds during the first months of a fiscal year beginning in October. In general, Vermont plans to advertise as many construction projects as possible during the late winter and early spring. It appears that bidding has been favorable at that time. However, given

adequate notice (see 15. above), I am sure that the state of Vermont and the contractors bidding on Vermont projects could adjust to a new pattern. The difficulties we encountered during this fiscal year were the result of a sudden, unexpected shift which occurred in early March.

17. With respect to S2913 and transferability of interstate funds, I would point out that both transferability and the minimum one-half of one percent interstate apportionments are not a part of T 23. They are contained in a surface transportation act. Since S2913 deals only with an interim period, I recognize the validity of not addressing the long term. However, the transferability will expire in 1983 unless future legislation is adopted. My major concern was the apparent disappearance of one-half of one percent which would leave Vermont in the not too distant future with nothing to transfer.

II

96TH CONGRESS
2D SESSION

S. 2913

To authorize appropriations for the construction of certain highways in accordance with title 23 of the United States Code, for highway safety, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 1 (legislative day, JUNE 12), 1980

Mr. BENTSEN (for himself, Mr. RANDOLPH, and Mr. BURDICK) introduced the following bill; which was read twice and referred by unanimous consent to the Committee on Environment and Public Works with instructions that if and when reported, the bill be referred to the Committee on Finance for the consideration of title II

A BILL

To authorize appropriations for the construction of certain highways in accordance with title 23 of the United States Code, for highway safety, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Federal-Aid Highway and Highway Revenue Act of 1980".

TITLE I

SEC. 101. This title may be cited as the "Federal-Aid Highway Act of 1980".

INTERSTATE SYSTEM AUTHORIZATIONS

SEC. 102. Subsection (b) of section 108 of the Federal Aid Highway Act of 1956, is amended by striking out "the additional sum of $3,200,000,000 for the fiscal year ending September 30, 1983," and inserting in lieu thereof the following: "the additional sum of $2,875,000,000 for the fiscal year ending September 30, 1983,".

HIGHWAY AUTHORIZATIONS

SEC. 103. Section 104(a)(1) of the Federal-Aid Highway Act of 1978 is amended by striking out "$1,500,000,000 for the fiscal year ending September 30, 1982.", and inserting in lieu thereof the following: "$1,900,000,000 for the fiscal year ending September 30, 1982, and $2,000,000,000 for the fiscal year ending September 30, 1983.". Such section 104(a)(1) is further amended by striking out "$400,000,000 for the fiscal year ending September 30, 1982.", and inserting in lieu thereof the following: "$500,000,000 for the fiscal year ending September 30, 1982, and $600,000,000 for the fiscal year ending September 30, 1983.".

BRIDGE PROGRAM AUTHORIZATION

SEC. 104. Section 202(6) of the Highway Safety Act of 1978 is amended by striking out "$900,000,000 for the fiscal year ending September 30, 1982,", and inserting in lieu thereof the following: "$1,500,000,000 for the fiscal year ending September 30, 1982, and $1,500,000,000 for the fiscal year ending September 30, 1983.".

INTERSTATE SYSTEM RESURFACING AUTHORIZATION

SEC. 105. (a) Section 105 of the Federal-Aid Highway Act of 1978 is amended by inserting "(a)" immediately after "SEC. 105." and the first sentence of such section is amended by striking out "per fiscal year for each of the fiscal years ending September 30, 1982 and September 30, 1983,", and inserting in lieu thereof the following: "for the fiscal year ending September 30, 1982, and not to exceed $1,500,000,000 for the fiscal year ending September 30, 1983.".

(b) The second sentence of such section 105 is amended by striking out "Such sums" and inserting in lieu thereof the following: "In the case of such funds apportioned before October 1, 1980, such funds".

(c) Such section 105 is further amended by adding at the end thereof the following new subsections:

"(b) In the case of such funds apportioned October 1, 1980, such funds shall be obligated for projects for resurfacing, restoring, and rehabilitating those routes on the Interstate System which are not on toll roads, except that where a State certifies to the Secretary that any part of such sums are excess to the needs of such State for resurfacing, restoring, or rehabilitating Interstate System routes and the Secretary accepts such certification, such State may transfer sums apportioned to it under section 104(b)(5)(B) of title 23, United States Code, to its apportionment under section 104(b)(1) of title 23, United States Code. Such sums may also be obligated for projects for resurfacing, restoring, and rehabilitating lanes in use for more than five years on a toll road which has been designated as a part of the Interstate System if an agreement satisfactory to the Secretary of Transportation has been reached with the State highway department and any public authority with jurisdiction over such toll road prior to the approval of such project that the toll road will become free to the public upon the collection of tolls sufficient to liquidate the cost of the toll road or any bonds outstanding at the time constituting a valid lien against it, and the cost of maintenance and operation and debt service during the period of toll collections. The agreement referred to in the preceding sentence shall contain a provision requiring that if, for any reason, a toll road receiving Federal assistance under this section does not become free to the public upon collection of sufficient tolls, as specified in the preceding sentence, Federal funds used for projects on such toll road pursuant to this section shall be repaid to the Federal Treasury.

"(c) In the case of such funds apportioned on or after October 1, 1981, such funds shall be obligated for projects for reconstructing, resurfacing, restoring, and rehabilitating those routes on the Interstate System which are not on toll roads, except that where a State certifies to the Secretary that any part of such sums are excess to the needs of such State for reconstructing, resurfacing, restoring, rehabilitating Interstate System routes and the Secretary accepts such certification, such State may transfer sums apportioned to it under section 104(b)(5)(B) of title 23, United States Code, to its apportionment under section 104(b)(1) of title 23, United States Code. Such sums may also be obligated for projects for resurfacing, restoring, and rehabilitating lanes on a toll road which has been designated as a part of the Interstate System if an agreement satisfactory to the Secretary of Transportation has been reached with the State highway department and any public authority with jurisdiction over such toll road prior to the approval of such project that the toll road will become free to the public upon the collection of tolls sufficient to liquidate the cost of the toll road or any bonds outstanding at the time constituting a valid lien against it, and the cost of maintenance and operation and debt service during the period of toll collections. The agreement referred to in the preceding sentence shall contain a provision requiring that if, for any reason, a toll road receiving Federal assistance under this section does not become free to the public upon collection of sufficient tolls, as specified in the preceding sentence, Federal funds used for projects on such toll road pursuant to this section shall be repaid to the Federal Treasury.".

(d) Section 104(b)(5)(B) of title 23, United States Code, is amended by striking out the words "and rehabilitating" and by inserting in lieu thereof the following: "rehabilitating, and reconstructing".

(e) The amendment made by subsection (d) of this section shall take effect upon the apportionment of the funds authorized for the fiscal year ending September 30, 1983.

(f) Section 104(b)(1) of the Federal-Aid Highway Act of 1978 is amended by striking "1982, and 1983" in the first sentence and inserting in lieu thereof "and 1982" and by striking "September 30, 1982, and September 30, 1983" in the last sentence and inserting in lieu thereof "and September 30, 1982".

INTERSTATE COST ESTIMATES

Sec. 106. (a) Section 104(b)(5)(A) of title 23, United States Code, is amended by adding at the end thereof the following new sentence: "Notwithstanding any other provision of this subparagraph, the Secretary in making the revised estimate of the cost of completing the then designated Interstate System for the purpose of transmitting it to the Senate and House of Representatives within ten days subsequent to July 1, 1981, or thereafter, shall include only the following costs: (i) the cost of completing all routes and portions thereof on the system which are not yet open to traffic, (ii) all costs of planned and approved later stage construction, and (iii) all costs of routes and portions thereof on the system (other than toll roads) open to traffic but which have not received any substantial Interstate System funding under section 108(b) of the Federal-Aid Highway Act of 1956, as amended.".

(b) Subsection (b) of section 108 of the Federal-Aid Highway Act of 1956 is amended by adding at the end thereof of the following: "The Secretary shall not approve any project the cost of which is to be paid from funds apportioned for the fiscal year ending September 30, 1983, or thereafter, if such project is not eligible for inclusion in the estimated cost of completing the Interstate System required to be submitted to Congress by section 104(b)(5)(A) of title 23, United States Code.".

MINIMUM APPORTIONMENT FOR RESTORATION AND RESURFACING

SEC. 107. (a) Section 104(b)(5)(B) of title 23, United States Code, is amended by adding at the end thereof the following new sentence: "Notwithstanding the preceding sentence, no State shall receive less than one-half of 1 per centum of the total apportionment made by this subparagraph for any fiscal year.

(b) The amendment made by subsection (a) of this section shall be applicable to funds apportioned for the fiscal year 1983 and thereafter.

APPORTIONMENT OF INTERSTATE SYSTEM RESURFACING FUNDS

SEC. 108. (a) Section 104(b)(5)(B) of title 23, United States Code, is amended by striking out "Seventy-five per centum" and inserting in lieu thereof "sixty per centum" and by striking our "25 per centum" and inserting in lieu thereof "40 per centum".

(b) The amendment made by subsection (a) of this section shall take effect with respect to funds apportioned for the fiscal year 1983 and subsequent fiscal years.

CONSTRUCTION IN ADVANCE OF APPORTIONMENT

SEC. 109. Subsection (a) of section 115 of title 23, United States Code, is amended by striking out "has obligated all funds for any of the Federal-aid systems, other than the Interstate System, apportioned to it under section 104 of this title, and".

INTERSTATE SYSTEM RECONSTRUCTION

SEC. 110. (a) Subsection (a) of section 119 of title 23, United States Code, is amended by inserting "reconstruction," immediately before "resurfacing,".

(b) The first sentence of subsection (a) of section 119 of title 23, United States Code, is further amended by striking out "(other than" and all that follows down through and including the period at the end of that sentence and inserting in lieu thereof the following: "(Other than toll roads). The Secretary may approve projects for resurfacing, restoring, and rehabilitating those lanes in use for more than five years on the Interstate System which are on toll roads and are subject to a Secretarial agreement provided for in section 105 of the Federal-Aid Highway Act of 1978.".

(c) Section 119 of title 23, United States Code, is amended by adding at the end thereof the following:

"(c) For the purpose of this section, the term 'reconstruction' shall have the meaning given the term 'construction' in section 101 of this title except that the term 'reconstruction' does not include building a highway on a new alignment with associated costs.".

(d) The amendments made by this section shall take effect upon apportionment of funds for the fiscal year ending September 30, 1983.

INTERSTATE RESURFACING

SEC. 111. (a) The first sentence of subsection (a) of section 119 of title 23, United States Code, is amended by striking out "those lanes in use for more than 5 years" and inserting in lieu thereof the following: "those routes".

(b) The amendment made by subsection (a) of this section shall be applicable with respect to funds apportioned after September 30, 1980.

INTERSTATE SYSTEM RESURFACING—FEDERAL SHARE

SEC. 112. The last sentence of subsection (a) of section 119 of title 23, United States Code, is amended by striking out "section 120(a)" and inserting in lieu thereof "section 120(c)".

EMERGENCY RELIEF

SEC. 113. (a) Clause (1) of the second sentence of subsection (a) of section 125 of title 23, United States Code, is amended by striking out "commencing after September 30, 1976," and inserting in lieu thereof the following: "in the period beginning October 1, 1976, and ending September 30, 1979, to carry out this section, and not more than $375,000,000 is authorized to be expended in the fiscal year ending September 30, 1980, to carry out the provisions of this section, and not more than $150,000,000 is authorized to be expended in any one fiscal year commencing after September 30, 1980.".

(b) Subsection (b) of section 125 of title 23, United States Code, is amended by striking the period at the end of the first sentence, inserting a colon in lieu thereof, and by adding the following: "*Provided*, That obligations for projects under this section, including those on highways, roads and trails mentioned in subsection (c) of this section, resulting from a single natural disaster or a single catastrophic failure shall not exceed $50,000,000 in any State.".

(c) The amendments made by subsection (b) of this section shall apply to natural disasters or catastrophic failures which the Secretary finds to be eligible for emergency relief subsequent to the date of enactment of this Act.

BRIDGE REPLACEMENT APPORTIONMENT

SEC. 114. (a) The second sentence of subsection (e) of section 144 of title 23, United States Code, is amended by striking out "September 30, 1980, September 30, 1981, and September 30, 1982,", and inserting in lieu thereof the following: "and September 30, 1980,".

(b) Subsection (e) of section 144 of title 23, United States Code, is further amended by adding at the end of the second sentence thereof the following: "By July 1, 1981, the Secretary shall submit to Congress an estimated cost of replacing or rehabilitating unsafe bridges in each State (both on and off the Federal-aid systems), and upon approval by Congress, the Secretary shall use the Federal share of such approved estimate in making apportionments under this subsection for the fiscal year ending September 30, 1982, and September 30, 1983.".

EXPENDITURES FOR COMPLETING GAPS

SEC. 115. Section 102 of the Federal-Aid Highway Act of 1976 is amended by adding at the end thereof the following new subsection:

"(c)(1) At least 30 per centum of the apportionment made to each State for the fiscal year ending September 30, 1982, of the funds authorized in section 108(b) of the Federal-Aid Highway Act of 1956 shall be expended by such State for projects for the construction of routes on the Interstate System which are not open to traffic.

"(2) A State which does not have sufficient projects to meet the 30 per centum requirement of paragraph (1) of this subsection may, upon approval of the Secretary of Transportation, be exempt from the requirements of such paragraph to the extent of such inability.".

CAR POOLS AND VAN POOLS AUTHORIZATION

SEC. 116. Subsection (f) of section 126 of the Federal-Aid Highway Act of 1978 is amended by striking out "and" and inserting in lieu thereof the following: "$1,000,000 for the fiscal year ending September 30, 1982, and $1,000,000 for the fiscal year ending September 30, 1983,", and by striking out "and $9,000,000 for the fiscal year ending September 30, 1980," and inserting in lieu thereof the following: "$9,000,000 for the fiscal year ending September 30, 1980, $10,000,000 for the fiscal year ending September 30, 1981, $10,000,000 for the fiscal year ending September 30, 1982, and $10,000,000 for the fiscal year ending September 30, 1983.".

HOLD HARMLESS

SEC. 117. (a) Notwithstanding any other provision of law, the amount that any State receives for the fiscal year ending September 30, 1983, as a result of any appointment made under paragraph (5) of subsection (b) of section 104 of title 23, United States Code, shall not be less than the apportionments made to such State under such paragraph for the fiscal year ending September 30, 1982.

(b) For the purposes of this section, the term "State" shall have the same meaning as is given it in section 101 of title 23, United States Code.

OBLIGATION LIMITATION

SEC. 118. (a) Notwithstanding any other provision of law, the total of all obligations for Federal-aid highways and highway safety construction programs for fiscal years 1982, 1983 shall not exceed $9,500,000,000. These limitations shall not apply to obligations for emergency relief under section 125 of title 23, United States Code.

(b) Notwithstanding the limitations contained in subsection (a) of this section, the Secretary shall not in any way control—

(1) the rate of obligation of any limitation by allocation of such limitation or in any other manner; and

(2) by priority or otherwise, programs or projects eligible for Federal financial assistance from those funds for which such programs and projects which are subject to such limitation, if such programs or projects are otherwise eligible for such assistance under title 23, United States Code, or any other applicable provision of law.

FEDERAL-AID URBAN SYSTEM AUTHORIZATION

SEC. 119. Section 104(a)(2) of the Federal-Aid Highway Act of 1978 is amended by striking out "and September 30, 1982.", and inserting in lieu thereof the following: "September 30, 1982, and $900,000,000 for the fiscal year ending September 30, 1983.".

SEC. 120. Section 401(a) is amended by adding at the end thereof the following new sentence: "With respect to bridge projects, the cost of the overall project contract is defined as the total contract cost for all labor, material and equipment necessary to contruct a new bridge, replace an existing bridge or rehabilitate an existing bridge including mobilization, existing structure removal, excavation, falsework, piers or other substructure, superstructure for main and subsidiary spans, arches, towers, decking, paving, lighting, guard rails, painting and other related work to complete said bridge extending from primary abutment through final abutment.".

TITLE II

SEC. 201. This title may be cited as the "Highway Revenue Act of 1980".

AD VALOREM TAX ON GASOLINE AND SPECIAL FUELS

SEC. 202. (a) Subsection (a) of section 4081 of the Internal Revenue Code of 1954 (relating to imposition of tax on gasoline) is amended by striking out "a tax of 4 cents a gallon." and inserting in lieu thereof "a tax equal to the greater of—

"(1) 4 percent (rounded out to the nearest cent) of the applicable average wholesale price of gasoline, or

"(2) 4 cents a gallon.".

(b) The first sentence of subsection (a) of section 4041 of such Code (relating to imposition of tax on diesel fuel) is amended to read as follows: "If any liquid (other than any product taxable under section 4081) is—

"(1) sold by any person to an owner, lessee, or other operator of a diesel-powered highway vehicle for use as a fuel in such vehicle; or

"(2) used by any person as a fuel in such a vehicle (unless there was a taxable sale of such liquid under paragraph (1)),

then there is hereby imposed a tax equal to the greater of (A) 4 percent (rounded out to the nearest cent) of the applicable average wholesale price of gasoline, or (B) 4 cents a gallon.".

(c) The first sentence of subsection (b) of section 4041 of such Code (relating to imposition of tax on special motor fuels) is amended to read as follows: "If benzol, benezene, naphtha, liquified petroleum gas, casing head and natural gasoline, or any other liquid (other than kerosene, gas oil, fuel oil, or any product taxable under section 4081 or subsection (a) of this section) is—

"(1) sold by any person to an owner, lessee, or other operator of a motor vehicle or motor boat for use as a fuel in such motor vehicle or motor boat; or

"(2) used by any person as a fuel in a motor vehicle or motor boat (unless there was a taxable sale of such liquid under paragraph (1)), then there is hereby imposed a tax equal to the greater of (A) 4 percent (rounded out to the nearest cent) of the applicable average wholesale price of gasoline, or (B) 4 cents a gallon.".

(d)(1) The second sentences of subsections (a) and (b) of section 4041 of such Code are each amended by striking out "2 cents a gallon" and inserting in lieu thereof "equal to one-half of the amount of tax imposed by such paragraph (determined without regard to this sentence)".

(2) The third sentences of subsections (a) and (b) of section 4041 of such Code are each amended—

(A) by striking out "at the rate of 2 cents a gallon" and inserting in lieu thereof "at one-half the rate provided by such paragraph"; and

(B) by striking out "a tax of 2 cents a gallon" and inserting in lieu thereof "a tax equal to the tax imposed by paragraph (1) (after application of the preceding sentence)".

(3) The first sentence of section 6421(a) of such Code (relating to nonhighway uses) is amended to read as follows: "Except as provided in subsection (i), if gasoline is used in a qualified business, the Secretary shall pay (without interest) to the purchaser of such gasoline an amount equal to the number of gallons so used multiplied by an amount equal to the rate at which tax was imposed on such gasoline under section 4081 reduced by 2 cents.".

SEC. 203. (a) Subsection (b) of section 4081 of the Internal Revenue Code of 1954 (relating to rate reduction) is amended to read as follows:

"(b) APPLICABLE AVERAGE WHOLESALE PRICE.—For purposes of this section—

"(1) IN GENERAL.—The term 'applicable average wholesale price' with respect to any gasoline means the average wholesale price in effect on the date on which such gasoline is sold or used.

"(2) AVERAGE WHOLESALE PRICE.—

"(A) IN GENERAL.—On April 1 and September 1 of each year the Secretary shall publish the average wholesale price of gasoline for the 6-month period ending on the preceding December 31 and June 30, respectively.

"(B) PERIOD FOR WHICH IN EFFECT.—Any average wholesale price of gasoline published under subparagraph (A)—

"(i) on April 1 of any year shall be in effect for the 6-month period beginning on July 1 of such year, and

"(ii) on September 1 of such year shall be in effect for the 6-month period beginning on January 1 of the succeeding year.

"(C) CONSULTATION WITH DOE AND DOT.—The Secretary shall consult with the Secretary of Energy and the Secretary of Transportation or their delegates in determining the average wholesale price of gasoline for any period.

"(D) CENTS PER GALLON EQUIVALENT.—At the same time as the average wholesale price is published under subparagraph (A), the Secretary shall publish the cents per gallon equivalent of the tax imposed by subsection (a) for the period during which such average wholesale price is to be in effect.".

(b) Subsection (e) of section 4041 of such Code (relating to rate reduction) is amended to read as follows:

"(e) APPLICABLE AVERAGE WHOLESALE PRICE OF GASOLINE.—For purposes of this section, the term 'applicable average wholesale price of gasoline' means the amount in effect under section 4081(b) on the date on which the liquid is sold or used.".

SEC. 204. Section 209(e)(4) of the Highway Revenue Act of 1956, as amended, is amended by adding the following at the end thereof: "Such interest and proceeds are considered related to the purposes for which the Trust Fund outlays will be made, having come in the first instance from tax receipts, or as interest earned by such tax receipts.".

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FUNDING FOR THE FEDERAL-AID HIGHWAY PROGRAM

TUESDAY, SEPTEMBER 9, 1980

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON TRANSPORTATION,
Washington, D.C.

The subcommittee met at 9:40 a.m., in room 4200, Dirksen Senate Office Building, Hon. Lloyd M. Bentsen (chairman) presiding.

Present: Senators Randolph, Bentsen, Stafford, and Pressler.

OPENING STATEMENT OF HON. LLOYD BENTSEN, U.S. SENATOR FROM THE STATE OF TEXAS

Senator BENTSEN. This hearing will come to order.

Good morning. Today's hearing is a continuation of the hearings on S. 2913, the Federal-Aid Highway Revenue Act. On August 19, this subcommittee met and heard testimony from witnesses representing Federal and State transportation departments and agencies. Today we will hear from the National Governors' Association, the National Association of Counties, the Conference of Mayors, and other interested parties. In addition to testimony presented today at these hearings, we are receiving written statements from interested parties. The hearing record will be kept open until September 23, 1980, for any interested person caring to submit such statements.

Thus far in these proceedings, we have heard that the issues we raised in S. 2913 are pretty well on target. The witnesses who have testified from State and Federal transportation departments have generally agreed it is time to reevaluate the role of the Federal Government in the construction and maintenance of the Federal-aid highways and bridges. The Federal Highway Administrator was here, and he said the Interstate System is reaching its design life at the rate of 2,000 miles per year. He agreed with us that the emphasis be shifted toward preserving that system. He also agreed there is significant need for bridge rehabilitation and a corresponding need for evaluation of the Federal role in that particular program.

With regard to the revenue title in S. 2913, the Administrator said that highway and gas tax revenues are down but highway construction costs are, of course, going up fast. The Federal Highway Administration is currently studying highway revenue needs and cost allocation, and we will hear more on that in the very near future.

The representatives of State transportation departments who testified see a strong Federal role in the Interstate System, and they agree that the percentage tax is perhaps the best approach on gasoline because we have seen the rehabilitation, the maintenance costs going right through the roof, and we are seeing the income of the Trust Fund down as we get cars with better gasoline mileage. So we are probably going to have to go to the percentage tax to meet that need for rehabilitation. We talked about 4 percent. Some are thinking of something higher than that. That is not going to be an easy thing to handle, as you know, Governor, and as Senator Sarbanes knows, with the problems we have had on the 10-cent gasoline tax here in the U.S. Senate.

I am delighted we have Governor Hughes of Maryland here. He has contributed substantially to this committee's deliberations before. And I am particularly pleased that we have our distinguished colleague, Senator Sarbanes, here to introduce him, I assume.

STATEMENT OF HON. PAUL S. SARBANES, U.S. SENATOR FROM THE STATE OF MARYLAND

Senator SARBANES. Thank you, Mr. Chairman. I will take just a moment of the committee's time. I appreciate this opportunity.

I have had the opportunity to work closely with the Governor on highway problems affecting our State, so I know of the skill and knowledge which he brings before the committee today. The Governor, as you know, was secretary of transportation in the State of Maryland for 6 years, and I notice there are a number of his former associates, members of the American Association of State Highway Transportation Officials, here in the room today. We, in Maryland, are pleased that one of our leading public officials at the local level, Frank Francois, has become the executive director of AASHTO as of the 1st of August. So there are a number of Maryland connections here today.

The Governor is particularly qualified to speak not only because of his service as secretary of transportation in the State, he was for a number of years the chairman of the State senate's finance committee, so he knows budgets backward and forward.

In the 2 years he has been Governor, he has done an enormously able and skillful job in our State. He knows the issues that are before this committee from a number of different perspectives. I congratulate the committee for having him before it as a witness, and I know he is going to bring some very important and useful perspectives for our work on these important issues in the Congress.

Senator BENTSEN. Senator Sarbanes, we are very appreciative of having you here and appreciate the contributions you made to the work of this committee. Harry Hughes is a friend of mine, too. I have been long impressed with his ability. We are delighted to have the Governor back.

STATEMENT OF HON. HARRY HUGHES, GOVERNOR, STATE OF MARYLAND, ACCOMPANIED BY THOMAS LARSON, SECRETARY OF TRANSPORTATION FOR THE COMMONWEALTH OF PENNSYLVANIA

Governor HUGHES. Thank you, Senator. I would like to get a copy of that transcript if I may.

Senator BENTSEN. Well, when we get through editing you may not recognize it.

Governor HUGHES. Mr. Chairman, as Governor of Maryland and chairman of the National Governors' Association Committee on Transportation, Commerce, and Technology, I am here today to emphasize the interests of the Governors in working with you and your colleagues, and with the administration, on what is clearly one of our Nation's most pressing problems—meeting future highway needs.

The enormous problems in the highway transportation area can be reduced to simple terms. Despite billions of dollars invested by all levels of government over the last 20 years, we are faced with unsafe and deteriorating roads and bridges that not only threaten lives but that will undermine our ability to revitalize our economy. Both our highway system and the financing mechanisms that support it are in need of an overhaul.

At both the Federal and State levels, our financing mechanisms, and the assumptions about allocation of responsibilities that underlie them, were designed under vastly different circumstances and expectations than those we face today. At that time no one could foresee the rapid escalation in fuel costs that began in the early 1970's, when I was Secretary of Transportation for the State of Maryland. Nor could anyone have foreseen the adoption of a new national energy conservation policy that aimed at reducing the use of gasoline. The almost uncontrollable inflation that has affected road building and repair costs, partly as a result of our increasing dependence on foreign oil, was equally unpredictable.

Despite these changed circumstances, there are some who would leave the financing mechanisms and the assumptions underlying those mechanisms unchanged, who would say, in effect, that having built the Interstate Highway System, the Federal Government should leave its repair and maintenance to the States. I submit that such an answer is not only unfair and unworkable but that it is unwise, both from the viewpoint of the States and from that of the Federal policymaker.

To the extent that anyone has had some control over the changing circumstances of highway finance, it has been the Federal Government. Federal controls kept the price of gasoline artificially low, contributing to unrealistic expectations about the course of future consumption, and the Federal decision to end controls abruptly changed those expectations. Federal policy also has encouraged greater fuel efficiency in automobiles—a very admirable policy. The combination of rising fuel costs and declining consumption has forced the States to raise taxes on a product whose price was already climbing at an unprecedented rate. And while the Federal Government's 4-cents-a-gallon tax on fuel has remained unchanged for a quarter of a century, the Congress this year has imposed $225 billion in new taxes on oil, with none of the revenues now slated for highway finance. To the extent that the windfall profit tax is felt at the fuel pump, it also will make it more difficult for States to raise their taxes in the decade ahead.

My point, obviously, is not to assess blame. It is to suggest strongly that the partnership between the Federal Government and States should be renewed in the light of these new circumstances. It is to our mutual benefit to do so. If States are forced to increase their gas taxes on top of the windfall profit tax, such increases will be reflected in the Consumer Price Index, which, as you know, drives upward the cost of billions of dollars in Federal entitlement programs. In addition, if the burden is left to the States alone, the resources to rebuild our highway system will not be adequate, and the entire Nation will suffer.

At the Federal level, neither the Highway Trust Fund, as it was conceived in the 1950's, nor the plethora of categorical grant spending programs accumulated over the last 25 years seem as relevant to dealing with the problems we face today. At the State and local level, neither our own shrinking resources nor the limited flexibility we are allowed under Federal categorical programs are adequate to do the job.

We appreciate the efforts being made by the administration to develop policy options that are more responsive to these changed circumstances, and to involve State officials in that process. We also appreciate your subcommittee's efforts along the same lines. We believe you are moving in the right direction.

Few, if any, issues will be more important to the States in the next session of the Congress. At our recent annual meeting in Denver, our transportation committee identified highway finance as our top priority, and we asked Pennsylvania Secretary of Transportation Thomas Larson, who sits to my right, to cochair a special task force to respond to Federal policy initiatives and to develop approaches that reflect the thinking of the States, who in the end must implement highway programs. Following my comments, Secretary Larson will discuss specific elements of your legislative proposal as they relate to NGA policy and the prospective work of our committee's highway task force.

The Governors believe that the opportunity now exists to overhaul the overly complex and fiscally inefficient system of highway program funding and to establish in its place flexible and progressive mechanisms that recognize the varied nature of today's problems. That opportunity also allows us to link transportation and energy policy in a fiscally responsible manner that enhances the ability of all levels of government to meet the transportation needs of all citizens.

The first and most critical issue deals with the fundamental concept of federalism. The Federal, State, and local governments deal with transportation problems inefficiently today because we treat every region of the country and every State as if they have identical problems. The needs of the Northeast are different from those of the Midwest and West, as are those of the South different from the Northwest. If we do nothing else than develop a system through which each State's specific and unique needs can be met in a responsive and effective manner, we will have taken an enormous step forward. This suggests clearly that we must move toward the establishment of broad national goals and guidelines and leave program implementation and identification of priorities to the State and local governments. At the same time, as Governors, we recognize the need to facilitate interstate commerce. Therefore, we support a degree of conformity provided conformity is achieved through policy guidelines, not through mandated and inflexible program details.

The need to respond to unique State and regional characteristics leads naturally to the issue of flexibility—a word I am sure you have heard a long time, Mr. Chairman. To put it bluntly, State and local governments are being hampered by unnecessarily rigid rules and redtape. We simply are not able to do an effective and efficient job because of the numerous inflexible categorical programs. We recognize the valid purpose for which they were created. But with shrinking resources and increasing needs, the system no longer works.

The sensible way to consolidate these narrow categorical programs is to group them in broad categories such as interstate, primary, secondary, urban, bridge rehabilitation and replacement, and safety. I do not suggest this list as being sacred; but if this list were adopted, funded adequately, and coupled with the flexibility provided through the use of certification acceptance procedures, the result would be more effective and efficient delivery of services.

Without disregarding the goals which fostered the establishment of separate categorical programs, we should now look forward to pooling the resources made available through these programs into a series of basic, broad programs to meet the most pressing needs of States and communities. The argument for giving States greater flexibility to meet their priorities is strengthened by the current debate over how to complete the interstate system and at the same time reconstruct and rehabilitate substantial portions of that system.

In terms of Federal funding, the growth experience in Federal and State motor fuel tax revenues over the first two decades of the Federal Highway Trust Fund created an unrealistic expectation of what such a flat rate tax could continue to accomplish. In addition to financing construction of the Interstate Highway System, which, as you know, remains uncompleted, the Federal Highway Trust Fund also was expected to accommodate other new and high priority programs and projects. We should not be surprised that the projected revenues are not sufficient to do that—nor should we shy away from examining other funding sources to meet today's problems.

We can no longer rely on the growth of a flat tax rate to finance such programs. The continued adequacy of a flat tax rate was predicted on the availability of cheap motor fuel and increased consumer travel. As we all know, gasoline is no longer cheap and the Nation has responded to the energy crisis by stepped-up fuel conservation efforts.

We must find a substitute approach to finance highway needs. While we as an association have not taken a formal position on the assessment of an ad valorem tax to replace the flat 4-cents-a-gallon tax on motor fuel, this is one of a number of options that must receive careful consideration.

On the financing issue, States have worked and will continue to work at improving their financing posture. Since 1974, at least 29 States have increased their gasoline tax rate. An unprecedented 30 States attempted to increase their motor fuel taxes during the 1980 session of the State legislatures. This trend will continue.

A number of States—including Washington, Indiana, Massachusetts, Kentucky—have moved to set an ad valorem tax on the sale of gasoline. Only last year in Maryland, we took another approach that is increasingly being used. We moved more than $80 million out of general funds and committed them to transportation programs.

As an aside, Mr. Chairman, I can say that that is causing us severe problems in our general fund programs today because a recession has hit us insofar as our general revenues are concerned.

It should be noted while State financing mechanisms are being adjusted to help with current needs, a large portion of those funds is used to match Federal dollars. The simple fact is that the Federal program requirements are, to a great extent, dictating the use of State resources. At a time when State financing resources also are shrinking, that means we are unable to direct those resources to meet our most pressing needs, and we are prevented from meeting them under the restrictive multilayered categorical approach at the Federal level. We must develop methods to increase Federal financing capability and to improve the productivity of the Federal dollar at the State and local level.

Providing States with more flexibility to set local priorities, and to allocate financial resources to meet those needs is one way to increase that productivity. To reiterate, when a Federal system is designed to meet a large array of needs in each and every State, then a less than efficient allocation of funds results.

It is clear the nature of our problem, the increasing needs nationwide, and our opportunity to deal with this issue suggest a complete reevaluation of the very basic organizational and structural relationships between the various levels of government. I am pleased that the administration and the Congress have begun to address that relationship. I strongly hope that none of us will shy away because of the potential political hazards from making the right choices on these most important problems.

As I promised you earlier, I have not attempted to recite the litany of horror stories across the country dealing with transportation needs. Rather I have represented to you the consensus and continuing interest of Governors throughout the country in seeking a sensible and workable framework within which all levels of government can be responsive to their citizens.

I urge you to seriously consider these principles and at the same time commit to you the continued involvement of Governors and State government agencies to work toward a satisfactory and productive resolution of the problems we face jointly.

In closing, Mr. Chairman, I wish to commend you for the introduction of the bill, which I think is a great step in the right direction, and I thank you very much for the opportunity to permit me to testify today.

Senator BENTSEN. Thank you, Governor. We are very pleased to have you back.

I am delighted to have Senator Stafford here for any comment he might like to make in the way of an opening statement.

Senator STAFFORD. I have no opening statement, Mr. Chairman, although I thank you for the opportunity.

I am pleased to hear Governor Hughes, although I missed the first part of your statement due to another engagement. But I heard most of it and the basic message.

Senator BENTSEN. Was there another statement to be presented at this time? Mr. Larson?

Mr. LARSON. Yes, Mr. Chairman, if I may.

Senator BENTSEN. All right, fine.

STATEMENT OF THOMAS LARSON

Mr. LARSON. Mr. Chairman, members of the committee, my name is Tom Larson, Pennsylvania Secretary of Transportation. It is a pleasure to appear before you to discuss the future of the Federal-aid highway program and this committee's highway bill, the Federal-Aid Highway and Revenue Act of 1980.

Before I begin, I would like to echo the Governor's comments and commend you, Mr. Chairman and members of the committee, for the action that has been taken. The introduction of S. 2913 could not have come at a better time. Holding these hearings now, early in the legislative development process, I am sure will provide very useful input in shaping 1981 Federal highway legislation.

I am here today in Governor Dick Thornburgh's stead; and both Governor Hughes and I are presenting testimony on behalf of the Committee on Transportation, Commerce, and Technology of the National Governors' Association. Our committee welcomes this opportunity to make recommendations regarding the next Federal-Aid Highway Act.

At the annual Governors' Conference last month in Denver, we had a very thoughtful session on new Federal highway legislation. One important result of that meeting was the creation of a special task force to identify highway legislative priorities for the future. The members of this task force represent several States—10 in all—and varying interests with respect to individual highway system needs. Over the next months, we will be working hard to reconcile the different needs and to develop a position statement on new Federal highway legislation. We plan to work together with organizations such as AASHTO; and, ultimately, to present our views to you and other key members of the Congress and the administration. My role throughout this process will be to cochair this task force along with Illinois Transportation Secretary John Kramer.

I would now like to summarize four key areas for legislative emphasis that were developed at the Denver conference.

First, the challenge of national energy independence calls for transportation to be linked to energy production and conservation.

Second, Federal-aid highways have been the recipient of a massive investment of public funds. The protection of this investment must receive a higher priority.

Third, we must find ways to do more with less. Strained financial resources are forcing increased fiscal austerity at all levels of government, whether Maryland, Pennsylvania or any other State.

Finally, there is a distinct need to tie future highway programs to economic development and urban revitalization.

With this as background, I would now like to discuss some specific legislative and program recommendations as they relate to S. 2913, the Federal-Aid Highway and Revenue Act of 1980.

I was pleased to find that authorizations were increased in several of the major categorical programs. The National Governors' Association has recognized the need for increased attention to and funding for 3–R work. In my own State of Pennsylvania, for example, the transportation department is responsible for some 45,000 miles of highway and 27,000 bridges. Over the years, Pennsylvanians have invested over $45 billion in this system, with appropriate Federal aid along most of the way. We are acutely aware of the importance of adequate levels of Federal aid to help protect our investment.

The increased emphasis on the existing interstate highway system, as proposed in S. 2913, could not be more timely for the many States with aging, overused interstate highway systems. In Pennsylvania, we have estimated a backlog of required 3–R work of $470 million on our 1,500-mile interstate highway system, but our annual 3–R apportionment is only about $5 million. Because we could no longer defer interstate 3–R work, we had to spend $16 million in sorely needed primary money to rebuild almost impassable segments of the interstate system.

We have put together a little brochure on our interstate system, and the pictures in here are graphically illustrating the problems we face in Pennsylvania.

While the National Governors' Association recognize that more attention to existing interstates is needed, at the same time we argue for the expeditious completion of critical missing links in the interstate highway system. If this objective is to be achieved, care must be taken to avoid major distortions in the distribution of interstate funds which now exist through the interstate discretionary program—a program established under the 1978 Highway Act. We all have unique needs and priorities; and it is becoming even more apparent in the case of the interstate highway system that there are now distinct differences in priorities among different parts of the country. In many southern and western States—Florida, for example—building new interstate highways carries a much higher priority than in Northeastern and Midwestern States like my own. In Pennsylvania, completion of the system is down to only a few, mostly urban segments, some of which are highly controversial and may never be built. But we are highly concerned with the existing system.

The criteria established for the interstate discretionary program has permitted $1.3 billion in interstate construction funds to be reallocated to parts of the country with major interstate system completion needs. Northeastern and Midwestern States have been the contributors. This Federal assistance could have been used on the aging interstate highways in the Northeast and Midwest to prevent the development of critical gaps in existing highways, if you will. I am committed, as a member of the NGA's highway task force, to being of assistance in finding ways to more fully balance interstate highway requirements with available resources, and to minimizing these regional funding inequities. In Pennsylvania, we have considered the option of a single, consolidated interstate program where States would have the discretion to use a large portion of Federal-aid for either new construction or restoration. In my judgment, this is an option that merits the attention of your committee.

The increase in funding for bridges, as proposed in S. 2913, is sorely needed. Closed and weight restricted bridges contribute to the total system disruption. Many local and regional economies are dependent upon the access afforded by key river and stream crossings. An effective national bridge system is vital to the reindustrialization of this country.

The most recent annual bridge report lists nationwide needs at $33 billion for bridge replacements and rehabilitations. Current levels of authorizations remaining under the 1978 act will address less than 10 percent of these identified needs. In my own State, estimates range as high as $1.5 billion for bridge requirement in the Pittsburgh area alone. The present weight restriction imposed on one bridge in that area is causing a severe economic disruption. A detour of some 36 miles is required because of this restriction to a key steel industry in the Pittsburgh area.

I mentioned earlier the challenge of national energy independence. The National Governors' Association supports program emphasis that would make the highway system more energy efficient and improve the energy transportation system.

Both the House in H.R. 6417, the Surface Transportation Act of 1980, and the Senate in S. 2720, its version of the highway/transit legislation proposed for this year, have advanced a new program to improve energy-impacted rail and highway transportation. The Federal Highway Administration's coal haul roads study found that some 34,000 miles of highway in 21 States are used for coal hauling. Construction needs are estimated at $20.4 billion to bring this system up to the full improvement standards established for this study. Also related to coal haul is the Federal Railroad Administration's study to address rail/highway crossing needs—a problem most prevalent in Western States like Colorado. I would urge that this too be considered in your legislation.

The House, in H.R. 6417, has also proposed a transportation system management program. If enacted, this program would give the needed priority to make more efficient use of the existing transportation system. Through improvements to traffic control signalization systems, the preferential treatment of high occupancy vehicles, the encouragement of carpooling and vanpooling, and other types of energy-conserving projects, we will be able to take advantage of the potential for energy conservation afforded by a more energy-efficient transportation system. This program gives us the opportunity to do more with less by focusing on less-capital-intensive improvements to the existing system. I urge your consideration of this program to properly address a key national priority.

There are other areas in S. 2913 which should be addressed. The concept of an ad valorem tax of 4 percent of the wholesale price of gasoline as proposed in title II is certainly one that should be explored further if we are to achieve a more stable revenue base. Of even more importance is the extension of the Highway Trust Fund. The National Governors' Association supports a permanent Highway Trust Fund to insure the preservation of an effective national highway system so essential to maintaining a viable U.S. economy.

You have a great challenge ahead of you in reshaping the Federal highway program to meet the needs of the eighties. I truly think the future of our country depends on your success.

Thank you, sir.

Senator BENTSEN. That is very helpful. You get into some specifics there.

Governor Hughes makes a very valid point, that this country isn't uniform in its needs, and we have to exercise some judgment and discretion in addressing the unique needs of particular States and areas. But that also gets into an extremely difficult political problem, as the Governor knows.

I note the comment made on the Interstate System discretionary fund that the Northeast has been the contributor in that and not so much the recipient—and I think that is true as I look at these numbers on the discretionary. Then I look on the other side of the coin and I look at how much States are paying in and how much they get back. And I look at my own State, which isn't unusual, and I note that we get back 74 cents on the dollar; your State gets back 96 cents, for example. So you have all kinds of disparities taking place.

Governor Hughes talked about the categorical grants. We have 39 of them—far too many. I couldn't agree with you more. I have fought that time and time again trying to broaden them and lessen the number. Some of our colleagues on the other side of this Hill don't agree, and I can understand their arguments because not enough is being spent for bridges or not enough is being spent for another specific so they want to mandate it, but that also leads to problems, as you say, because of variance across this Nation.

I think I agree totally with the Governors: We ought to make this Highway Trust Fund permanent as a user tax. When we talked about increasing the gasoline tax, as we did, to 10 cents here or 35 or 50 that some spoke of, we had violent opposition. Part of that opposition was brought about because we didn't know where it was going to go. It wasn't necessarily determined where it would go. I don't think that opposition is as strong if you say it goes back to maintain the highways you are driving on so that they aren't destroyed; that we have made the most major investment any nation in the world has ever made in a highway system and it would be foolhardy, it would be stupid to let that deteriorate and go down the drain. I know of the opposition to the building of the Interstate Highway System, but where would we be today if we didn't have it?

I would hope that you talk about these options, even where your associates have not taken positions—and it is true, as I understand it, that you do take a position on the ad valorem tax approach. That would be of help to those of us who are trying to push it and see that this fund has adequate resources.

As I look at the problem of dangerous bridges across this country, I see incredible numbers. So what we anticipate for the future is not so much the building of new highways, but trying to make those we have safe and preserve them, and rebuilding an incredible number of bridges across this country that are not safe.

So, rather than a question, I have more of a commentary, Governor and Mr. Secretary, on what I think are very fine statements that you gentlemen have made.

Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman. I am not sure that I have many questions.

I was very interested in the statements, Governor, by you and Mr. Larson. The message I got on categorical funding was really, We want the money, but we would like to have a much greater say in how we spend it in our respective States, if I got your message correctly there.

I notice there was quite a lot of talk about the economic importance of the Interstate System, with which I agree. I didn't hear much about the national defense aspects of the system, which I think are also important and something none of us should overlook because originally the concept for the Interstate System was national defense first and transportation, economically speaking, second, as I recall.

This bill that is the subject of our hearings will, as I understand it, have to be rewritten and reintroduced in the next Congress, and I suspect that the beginning of the rewrite, Mr. Chairman, will probably be in October or November of this year. We would like to get any concrete, specific suggestions that you have for us in the rewriting of the bill in October and November so that those suggestions we feel should be incorporated can be before the bill is reintroduced and rewritten in the next Congress.

Since, Mr. Chairman, you and I will be here for the next 2 years——

Governor HUGHES. I am in the same position. You are stuck with me for 2 years.

Senator STAFFORD. We will all work together.

Just one or two questions, then I will submit any others that occur to me to our witnesses in writing, in view of the time constraints, and ask if they might respond on a timely basis if you would for the record.

One question is this: Will the States, Governor, have any difficulty in raising sufficient revenues to provide for the State-matching share during the next few years? If the Federal Government provided higher funding levels for the Federal-aid programs, would there be corresponding increases by the States?

Governor HUGHES. I am sure the States, without knowing all their problems, would have some difficulty. As I indicated in my testimony, some States—I think 11 this year—have increased their gasoline taxes. Four of them went to the ad valorem. Even with that they are going to have difficulty because, for one thing, as an example, in Maryland our gasoline tax, which is a flat rate, is down over 9 percent. Our titling taxes were down over 30 percent because automobiles were not being sold. So I am sure we will have difficulty. But I don't think there is anybody that would disagree we have to make the efforts to increase the effort so we can meet the Federal match.

Senator STAFFORD. Mr. Larson, did you have a comment on that?

Mr. LARSON. Yes; I would say that we are absolutely committed to doing our share. In Pennsylvania, Governor Thornburgh campaigned strongly to restore Pennsylvania's road and bridge system. Almost immediately after coming into office, after a long period of very serious neglect, in Pennsylvania we did pass a 2-cent tax, which brought it up to 11 cents a gallon. More recently, we have passed a comprehensive fee bill which raises aproximately $85 million. So we have passed something on the order of $200 million in the first year and a half approximately of this administration. So I think our commitment is well demonstrated.

Senator Stafford. Just one more question at this time, and that is, Governor, what is the impact on your highways and available funds of the considerable drop in travel in automobiles that has occurred in the last 12 months?

Governor Hughes. The impact on the revenues?

Senator Stafford. Both revenues and wear and tear on the highways, if you could comment on both.

Governor Hughes. Well, the impact on revenues I have already indicated was almost a 9-percent drop in gasoline taxes over the previous year. We do find a lot of people staying closer to home. One benefit of that, they are using our beach resorts more in Maryland rather than going long distances. I can't really respond to what the impact has been on the highways except that we have very severe problems. And the chairman has mentioned bridge problems. We have some critical bridge problems that we have had to put limitations on, such as 8,000 pounds, where they have been carrying much more than that. We have reexamined our highway program, and unless something happens, some infusion of funds happens, we will have to seriously curtail this program.

I would agree with the chairman that, with few exceptions of what you might call core kind of projects, most of what we are going to be doing in the future is rehabilitating, protecting, modifying, safety, improvements, and very little of building of new highways over virgin territory. But there are still some core needs. We are facing a critical situation in Maryland. When I was secretary we cut the highway program in half at that time, and it looks like we have to go back and do it again. This is a highway program that has been committed for over 20 years, and unless something is done, particularly in the cities, street maintenance, potholes, and so forth, but we are willing to live up to our responsibility.

I wouldn't want you to get the impression, Senator, we are saying just give us the money and let us do with it what we want. We do feel a need for more flexibility than what we currently have under the present programs. We think we can identify the need, better implement it, but still stay within the guidelines, general policy statements.

Senator Stafford. Mr. Larson, do you have a comment?

Mr. Larson. Yes, Senator. I think there is a very major misconception to be dealt with here, and that is as automobile traffic drops, maintenance costs should drop proportionately. That just isn't so. For example, in Vermont last year I understand you had 6-foot frost penetration. Climatic conditions affect the roads. This summer in Texas there were many roads destroyed by the heat we had. So climatic conditions does have an effect. Truck traffic is by and large getting heavier and increasing in numbers. So we are seeing that increasing perhaps rather than decreasing across our interstates. At least on these two accounts, I think we would have to come down to the notion our maintenance costs are not decreasing, and they will not.

Senator Stafford. I don't quarrel with what you have said. I have suspected that increased truck traffic would more than offset the wear and tear on highways with automobile traffic going down. I also agree that climate has a lot to do with it.

Thank you, Mr. Chairman.

Senator BENTSEN. Let me just comment on the point of potholes, since I very strongly resisted last year a diversion of Federal funds to take care of potholes. I can't help but remember that spring was coming, and I kept saying if I can hold on until the city maintenance crews get out to take care of the potholes, we will survive this fall. But if we try to take care of all the potholes in cities we won't have anything left. I know how popular it gets at the end of winter every year that we take care of potholes in cities and counties. But at some point we have to draw the line and let the cities take care of this so we can take care of major structural things.

Governor HUGHES. I am not suggesting we should have a national pothole policy.

Senator BENTSEN. There sure was a suggestion, and a strong one, last winter.

Governor HUGHES. I was just pointing out the problems that exist in the cities that put additional pressure on us at the State level.

Senator BENTSEN. Governor, thank you very much. We appreciate your testimony. Thank you, Mr. Larson.

Governor HUGHES. Thank you, Mr. Chairman.

Senator BENTSEN. Our next witnesses are Commissioner Roy Orr, who is president of the National Association of Counties, and Mayor Henry Marsh of the U.S. Conference of Mayors, chairman of the Subcommitee on Urban Highways, Richmond, Va.

STATEMENTS OF ROY ORR, PRESIDENT, NATIONAL ASSOCIATION OF COUNTIES, ACCOMPANIED BY DAN MURPHY, CHAIRMAN, TRANSPORTATION POLICY STEERING COMMITTEE, NATIONAL ASSOCIATION OF COUNTIES; AND KATHY HOFFMAN, LEGISLATIVE REPRESENTATIVE FOR TRANSPORTATION, NATIONAL ASSOCIATION OF COUNTIES; AND HENRY MARSH, CHAIRMAN, SUBCOMMITTEE ON URBAN HIGHWAYS, U.S. CONFERENCE OF MAYORS, ACCOMPANIED BY LEN SIMON, ASSISTANT EXECUTIVE DIRECTOR, U.S. CONFERENCE OF MAYORS

Senator BENTSEN. Commissioner Orr, I am delighted to see you. You are smiling this morning and I think I know why. Aren't you from Dallas?

Mr. ORR. Could be.

Senator BENTSEN. I know you would like to talk about that pothole you constructed for the Redskins, as my friend Senator Stafford suggested, but you are going to have to stay on the subject matter. And if you would be our leadoff witness, an old friend of mine who has worked very hard at county government. There are not many positions that are closer to the people than yours. You perform it well, and we are delighted to have you here.

Mr. ORR. Thank you, Mr. Chairman. It did make my entrance into the National Association of Counties much easier after last night. Perhaps out of 200 employees about 2 rooted for the Cowboys.

I appreciate the comments you made concerning county government because I also believe it is the government closest to the problem. You are a former county judge, and I think you know that well. You had great training to make a great Senator.

However, I must caution all of you. You were discussing potholes. Counties also have pothole problems and not just the cities.

I am here today not only as county commissioner of Dallas County, but also as president of the National Association of Counties, whose views I am representing today. With me is Dan Murphy, to my right, the county executive of Oakland County, Mich., which is right outside of Detroit. He also chairs NACo's Transportation Policy Steering Committee. Directly behind me is Kathy Hoffman, who is NACo's legislative representative for transportation.

In preparing our testimony today, we have reviewed the subcommittee's bill, S. 2913, and the U.S. Department of Transportation's Federal highway legislation, program and revenue options paper of June 26, 1980. Our comments will relate to the major provisions of the committee's bill and some of the legislative options described in the Department of Transportation paper. Since the specific legislative issues raised in both documents have not been formally reviewed and discussed by NACo's Transportation Steering Committee, which sets our legislative policies, our comments are strictly preliminary and will not cover all the options and issues mentioned in either the bill or discussion paper.

We also realize, Mr. Chairman, that both S. 2913 and the options paper represent no final decisions on the part of the committee or the Department of Transportation, but serve rather to stimulate discussion of the basic issues to be resolved before the Federal-aid highway program can be reauthorized. As I understand it, between now and early December, we plan to review each of the proposed options and any subsequent legislation with members of our steering committee in order to make more specific recommendations later in the legislative process. In the meantime, we compliment the subcommittee for encouraging constructive debate of these issues by holding hearings and inviting the participation of a wide range of groups like NACo, which we are seeing today, which are concerned with transportation policy.

With these qualifying remarks in mind, Mr. Chairman, we will discuss our preliminary reactions to S. 2913. We support those provisions which would continue the Highway Trust Fund beyond its 1985 expiration date, and encourage the expeditious completion of "essential gaps" within the interstate highway system.

We endorse the committee's broadening of the interstate 3-R program to include a fourth "R", which is for reconstruction. We also acknowledge the need to add greater weight to vehicle miles traveled in apportioning interstate resurfacing funds. We hope this will reflect a greater Federal emphasis on needed maintenance within the Federal-aid highway program in the future.

Deviating a moment, I couldn't agree more that maintenance is our biggest problem today, and we must maintain the great system we have over our country.

We welcome the bill's proposed authorization increases for the interstate and interstate 3-R programs and the Federal-aid urban, primary, and secondary systems. We particularly appreciate the sizable increase in the bridge replacement and rehabilitation program.

We acknowledge, along with the committee, the pressing need to rectify the Highway Trust Fund's increasing imbalance. Yet we have no definitive strategies to propose at this time. Rather than commit ourselves to one method of increasing Trust Fund revenues such as conversion to an ad valorem tax, we would prefer to explore further the advantages and implications of many strategies, including increasing Trust Fund unit taxes, indexing motor fuel taxes to some measure of highway need, or developing new taxes, such as ton-mile or weight taxes, to reflect the damage done by increasing numbers of heavy trucks that we have heard testified this morning. I think that is a very true statement.

We appreciate and support the subcommittee's explicit mention of off-system bridge needs to be included in the next bridge cost estimate.

Finally, we also heartily endorse the subcommittee's reaffirmation of the President's responsibility for proposing to Congress for its review any limitations on the obligation rate of funds for Federal-aid highways and highway safety construction programs. The suspension of Federal-aid highway program obligations last spring, as well as the subsequent limitation on the rate of further obligations, resulted in the dislocation of many county highway and bridge programs, and I am assuming that would be the same for the cities. Though counties accept the need for fiscal restraint, sudden limitations on the obligation of previously authorized highway funds without congressional approval is not a constructive solution. Indeed, it may result in additional expenses in the long run due to layoffs to staff committed to projects, and delays in vital repairs, as you will note from the letters attached to our statement. And we have some attachments we made. Therefore, we greatly appreciate the subcommittee's responsiveness in this matter.

Despite our support for many of the provisions of S. 2913, we do have some concerns. The first is the possible elimination of the secondary road program from the Federal-aid system. This is described in the DOT discussion paper as an option for future highway legislation. NACo commends the subcommittee for not adopting this approach in S. 2913. We hope that any subsequent legislation would also continue the secondary road program as part of the Federal-aid system. These roads are an integral part of our Nation's transportation system and impact our Nation's economy and the gross national product. These are local roads over which essential commodities are transported, including: Food, manufactured products, and energy resources such as coal. For these reasons as well as others I will describe, Mr. Chairman, we regard continued Federal support for the secondary roads as vital to the Nation's economic well-being and transportation network.

As Administrator Hassell's testimony and the Department of Transportation discussion paper point out, the deterioration of secondary roads is increasing. "Only 28 percent of the existing paved roads can be classified as having a good, or fairly new travel surface," according to the Department of Transportation paper.

In assessing future needs, it further states, "Travel on secondary routes is expected to increase by almost 2 percent per year through 1990." Though the paper assumes this will have little effect on the operational features of secondary roads, it does admit that there will be exceptions. These "will occur where rail branch lines are abandoned, and rural roads will be relied upon to handle increased heavy truck traffic and increased demand for farm to harbor travel."

Mr. Chairman, these exceptions may become the rule in many agricultural areas. In the last decade alone, over 7,000 miles of railroad track have been abandoned in 11 major agricultural States. Last year the rural development initiatives report, "Improving Transportation in Rural America," estimated that 16,632 more miles of light density rail lines are likely candidates for abandonment in the next few years.

Since railroads handle over 70 percent of coal ton-miles and 60 percent of grain ton-miles, the increasing number of abandonments is extremely significant for not only agricultural but energy needs as well. Some of our agricultural counties in Kansas, Iowa, Nebraska, and Colorado tried to stem this tide by forming a port authority to buy and operate a bankrupt railroad, which was the Rock Island. But most will not be able to afford this luxury, and the secondary roads will bear the burden. The rural transportation task force's finding that "local areas experiencing increases in truck volume, rail abandonment, or resource extraction will feel the greatest decline in the quality of their roads and bridges" is valid for many areas with secondary roads. Heavy truck traffic, which we heard something about, especially over 50,000 pounds, has increased from 8 percent in 1955 to 30.3 percent in 1975. The condition of secondary roads described in DOT's options paper bears this out, Mr. Chairman. "By 1990 nearly 90 percent of today's paved mileage will need replacing." Five years later approximately 90 percent of the total system will have at least one and possibly more deficiencies related not only to pavement, but also to geometrics, roadway cross-section or operating performance. In addition, the report notes one out of three bridges on the system are deficient and need to be repaired or replaced.

This is not strictly a local problem, Mr. Chairman. It also affects our international balance of trade in agricultural commodities. The rural transportation task force report on "Transportation Services to Meet the Growing Needs of Agriculture" estimated in 1977 that roughly $5 billion worth of exports to Europe would be adversely affected by deterioration of our domestic and foreign shipping arrangements. These shipping arrangements depend increasingly on the highways as well as railroads.

Secondary roads are not only important for agriculture but also for energy related uses and development. According to the coal haul roads study, 87 percent of the coal haul road mileage is in rural areas. Of those roads, the secondary system accounts for a coal haul road mileage of almost 8,000 miles. This is approximately 35 percent of total rural on-system mileage.

With the increased use of rural roads for coal hauling comes increased maintenance and construction needs. Estimates of energy-induced costs range from $20 billion to almost $4 billion depending on the level of improvements standards used. Of the original estimate of $20 billion of construction needs from increased heavy truck traffic, identified by the coal haul roads study, secondary roads account for $3.7 billion over an 8-year period—from 1977 to 1985. These needs are naturally concentrated in the Appalachian coal mining region with the States of Kentucky, Ohio, Pennsylvania, and West Virginia accounting for three-fourths of total needs.

Staggering as these figures are, they are only a partial picture of the energy-induced highway needs of the future which will affect secondary roads. They are based on information gathered in only 15 coal-producing States and estimates for 6 others. They do not account for other energy related developments in many Western and Southern States. These include highway improvements to provide access to fossil-fueled and nuclear powerplants and to support offshore drilling activities and accommodate increased traffic volume due to the movement of workers, materials, and equipment to energy facility worksites and new population growth created by energy production and conversion activities. Eighty-eight percent of these "nonhaul energy induced needs" described in highway needs to solve energy problems are concentrated on the Federal-aid highway system. They include not only the Appalachian States but areas in Colorado, Utah, Wyoming, Montana, New Mexico, Arizona, and North and South Dakota. Secondary roads are a major part of the Federal-aid system in these areas.

I have given you a rather somber picture of the secondary road system, Mr. Chairman, but I also have a little bit of good news. While the Federal investment in the secondary system has remained about 25 percent and the State investment has declined by 25 percent, the local government share provided by counties and towns has risen significantly. In addition, it is a popular and needed program. The balance of Federal secondary road funds left unused is the lowest of all the major highway categories. Few of the funds are 3 years old, most are used in the year they are appropriated. I think this is great. Finally, the secondary road system accounts for less than 8 percent of the total Federal-aid highway budget, hardly an amount that could remedy the imbalance within the highway trust fund.

Thus, NACo strongly urges this subcommittee and the Congress to resist efforts to eliminate the secondary road program from the Federal-aid system. In terms of future options for this program, the second described in DOT's option paper has the most chance for success, in our judgment. This calls for an increase in the program level to compensate for inflation.

While NACo has generally supported the block grant approach to Federal funding, it would not do so if it is used as a disguise for reduced Federal funding. Therefore, we withhold judgment on the rural block option sketched briefly in the discussions paper. We also acknowledge that some Federal guidelines would also be needed for the program and difficult to define satisfactorily.

The final area of concern I will address is the highway bridge replacement and rehabilitation program, and you have heard quite a bit about that this morning. The State inventory of bridge replacement and rehabilitation needs incorporating those for the offsystem should be complete by the end of December. Current State allocations, based on 1978 figures, reflect few of these offsystem needs and urgently require readjustment. The results of a National Association of Counties research study completed last June for the Federal Highway Administration reveal that counties own and maintain 7.5 times the number of offsystem bridges as do the States. I don't know whether you realize that or not. Approximately 30 percent of these county offsystem structures are eligible for funding based on sufficiency ratings. Yet the number of eligible county structures that have been or will be funded in fiscal year 1979 and fiscal year 1980 are less than 1 percent of the total number eligible. To give a better picture of the results, I have attached a table from the NACo study which breaks these results down for each State, and you have that as an attachment.

We hope that any future highway legislation will require annual adjustments of State bridge allocations to reflect accurately the real needs of onsystem and offsystem bridges identified by yearly inspections.

In terms of the options mentioned in the DOT discussion paper, we are inclined to endorse the status quo option described on page 44. This is a new program about to reflect the real needs identified by an extensive inspection program. In our judgment, modification of the program does not make sense until it has had a chance to operate as it was originally designed.

I might deviate. Even in our own county, after our State made the inspection, we are going back and recertifying that with our own study to see what the priorities might be and how bad our bridges are.

The cost-to-complete option also described in the option paper would not be acceptable to NACo if it means total exclusion of offsystem bridges whose safety needs are as critical as those onsystem and whose importance to the country's agricultural economy and energy-related transportation is similar to that of secondary roads. Priorities should be set, but they should be based on the current sufficiency rating system.

As further proof of the importance of offsystem bridges, the sufficiency rating used to determine a bridge's eligibility for Federal bridge funds includes not only safety and serviceability factors but also how essential it is for public use. This factor is determined by a combination of average daily traffic, detour lengths caused by not being able to use the bridge and whether or not it is part of a defense highway. At least 15 percent of the sufficiency rating is based on the essentiality for public use factor.

Finally, Mr. Chairman and members of the committee, we at NACo, representing over 75 percent of the population of the Nation's counties, look forward to working cooperatively with you and the subcommittee to strengthen and improve the Federal-aid highway program. We acknowledge the stark realities of inflating costs and shrinking resources. Yet we remain committed to doing our part in reaffirming county governments' continued partnership with the States and Federal Government in maintaining and completing our national highway and bridge system, and we appreciate the opportunity of being here. As we say in Texas, Mr. Chairman, "If it ain't a good deal for both parties, it ain't a good deal," and we are willing to make it a good deal for both parties and do our part at the county level.

[Attachments to Mr. Orr's statement follow:]

ATTACHMENT I

WASHINGTON STATE
COUNTY ROAD ADMINISTRATION BOARD
[illegible] [illegible]
[illegible] MARTIN WAY, N.E. OLYMPIA, WASHINGTON [illegible]

June 4, 1980

Dan Murphy, Chairman
Transportation Steering Committee
NACO
1735 New York Avenue N.W.
Washington, D.C. 20006

RE: STEERING COMMITTEE MEETING

Dear Dan:

I regret that I will be unable to participate in the NACO Transportation Steering Committee meeting in Las Vegas on Saturday morning. My room reservations and travel arrangements have already been made on the basis of a Sunday noon arrival and I cannot change these arrangements at this late date.

I'd like to make a comment and suggestion regarding what I consider to be the most important item on the agenda, namely the future of the Federal Highway Program. Our immediate concern in this area is the limitation that has been placed on the rate of obligation of Highway Trust Funds. In our state the Bridge Replacement Program has been particularly impacted by this development to the detriment of all concerned as far as we can tell. After several years of inventory, inspection, program development and design, we finally had our program poised and ready to go into high gear. The Administration action restricting obligation authority has seriously impacted the entire effort. Unless we can get the program re-established very soon, we will very likely lose a few bridges, we will be laying off county engineering staff, some of the smaller contractors may very likely be going out of business, many construction trades people will be out of work. This is a matter of deep concern and I feel that NACO should take the strongest possible position in prevailing upon the Administration to permit normal and orderly obligation of already authorized Highway Trust Funds.

Enclosed for your information is a copy of a letter from the Chairman of our state's County Road Administration Board which recently went to our two senators and seven representatives in Washington, D.C.

Very truly yours,

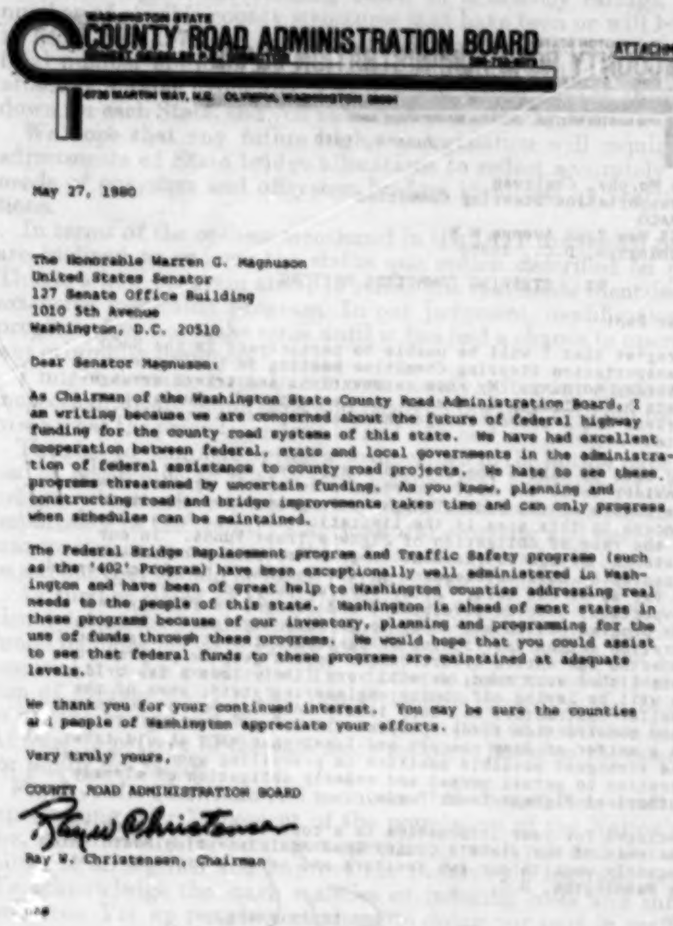
Ernst Geissler

ERNEST GEISSLER, DIRECTOR

CC: CRAB Members

Enclosure

ATTACHMENT 11



WASHINGTON STATE
COUNTY ROAD ADMINISTRATION BOARD
[illegible] MARTIN WAY, N.E. OLYMPIA, WASHINGTON [illegible]

May 27, 1980

The Honorable Warren G. Magnuson
United States Senator
127 Senate Office Building
1010 5th Avenue
Washington, D.C. 20510

Dear Senator Magnuson:

As Chairman of the Washington State County Road Administration Board, I am writing because we are concerned about the future of federal highway funding for the county road systems of this state. We have had excellent cooperation between federal, state and local governments in the administration of federal assistance to county road projects. We hate to see these programs threatened by uncertain funding. As you know, planning and constructing road and bridge improvements takes time and can only progress when schedules can be maintained.

The Federal Bridge Replacement program and Traffic Safety programs (such as the '402' Program) have been exceptionally well administered in Washington and have been of great help to Washington counties addressing real needs to the people of this state. Washington is ahead of most states in these programs because of our inventory, planning and programming for the use of funds through these programs. We would hope that you could assist to see that federal funds to these programs are maintained at adequate levels.

We thank you for your continued interest. You may be sure the counties and people of Washington appreciate your efforts.

Very truly yours,

COUNTY ROAD ADMINISTRATION BOARD

Ray W. Christensen

Ray W. Christensen, Chairman

[illegible]

ATTACHMENT III

FROM COMMUNICATIONS WITH COUNTY GOVERNMENTS
PREPARED BY THE NATIONAL ASSOCIATION OF COUNTIES
RESEARCH FOR THE FEDERAL HIGHWAY ADMINISTRATION.

TABLE 5. STATE SUMMARY INFORMATION
ON OFF-SYSTEM BRIDGES

State	Number of State Off-System Bridges	Number of County Off-System Bridges	Number of County Off-System Bridges Eligible for Funding	Estimated Number of County Off-System Bridges Selected for Funding	
				FY'79	FY'80
ID	6	1,067	437	13	11
OR	0	3,000 - inc. city	N.A.	8	9
MA	0	2,680	406	80	N.A.
MD	242	1,400	N.A.	5	N.A.
PA	5,831	4,100	1,000	N.A.	N.A.
IL	1,165	1,331	N.A.	96	97
IN	25	11,475	N.A.	266	266
MI	2,438	2,435	N.A.	46	16
MN	25	7,620	N.A.	21	22
OH	451	12,756	3,086	157	N.A.
WI	0	1,268	N.A.	3	N.A.
IA	354	20,000	10,000	21	N.A.
KS	10	13,000	5,600	11	11
MO	600	14,150 - inc. city	11,320	N.A.	7
NE	0	12,378	3,762	65	27
NY	797	7,928 - inc. city	3,612	202	N.A.
NJ	301	1,430	150	2	4
CO	10	4,272	N.A.	0	0
				181 use	181 use
MT	224	2,400	422	9	N.A.
ND	0	3,818	1,985	12	N.A.
SD	58	4,300	557	8	13
UT	5+	791	N.A.	22	N.A.
WY	N.A.	N.A.	N.A.	N.A.	N.A.
AZ	28	397	259	5	N.A.
CA	1,001	6,620 - inc. city	1,499	20	10
AL	200	6,000	N.A.	32	N.A.
FL	683	1,877 - inc. city	354	N.A.	47
GA	7	7,028	2,700	110	N.A.
KY	3,148	4,451	2,770	0	21
MS	N.A.	9,500	N.A.	0	N.A.
SC	3,550	2,500	2,000	0	N.A.
TN	944 city	8,286	N.A.	N.A.	N.A.
AR	2,073	6,758	5,333	4	12
LA	2,000	N.A.	N.A.	0	N.A.
NM	175	521	198	6	7
OK	384	18,000	8,700	0	2
TX	3,130	17,200	N.A.	0	4
TOTALS	29,869	223,520	68,130	1,241	588

Senator BENTSEN. Thank you, Mr. Orr. We will proceed with Mayor Marsh's statement and then ask questions.

STATEMENT OF HENRY L. MARSH III

Mayor MARSH. Thank you, Mr. Chairman.

I am Henry Marsh, mayor of the city of Richmond, Va. I am here today on behalf of the U.S. Conference of Mayors, composed of the Nation's principal cities. I serve the Conference as Chairman of the Subcommittee on Urban Highway Systems. With me is Len Simon, Assistant Executive Director of the U.S. Conference of Mayors.

Mr. Chairman, the Conference of Mayors appreciates the opportunity to discuss with you the future of our national highway investment. You provided great leadership to all mayors with your efforts on behalf of the Surface Transportation Assistance Act of 1978. We look forward to working closely with you again to help fashion a highway program which makes sense for the eighties.

Highways are important for cities. They are the central component of the overall transportation system which makes our cities work—the lifeblood of community and economic development. They should endure the test of time and be consistent with the overall choices we make for our urban future.

In Richmond, we are engaged in a painful but hopefully productive period. With the help of the Carter administration, we are trying to negotiate a new highway system which meets the basic objectives of the State highway department, without causing a threat to the future economic and transportation vitality of the city of Richmond. Because of State-local-Federal cooperation, we are hopeful that we can avert a new highway project which would result in large commercial development outside the boundaries of the affected communities, with extremely negative consequences on our existing business districts.

All of our cities want good highway decisions based on this kind of State-local-Federal cooperation.

The U.S. Conference of Mayors is taking steps to help make that happen. As an example, we have focused over the last year on helping cities make decisions with respect to the interstate withdrawal and substitution process so that the goal of expeditious completion of the interstate, required by the 1978 act, can be met.

The Conference is conducting a program in conjunction with the Department of Transportation that includes preparation of a handbook on the new regulations; publication of a newsletter, "Crossroads," a copy of which we are submitting for your review; analyzing and reporting on current events related to the withdrawal process; meeting with individual cities to help develop approaches; and convening two national sessions for those cities we have identified as active in the withdrawal/substitution process. To date, officials in 16 urban areas have made over $8 billion in trade-ins since 1973. About 119 uncompleted urban interstate segments remain with an estimated cost of $19 billion. As the 1983 deadline to make trade-in decisions approaches, we are working with those cities contemplating withdrawal actions, as well as with those cities trying to spend their substitute funds on highways and transit projects.

Our approach in this area is a unique one— simply to provide to all local officials the information and materials which they need to help make, with Federal and State officials, the most reasonable decision possible for their area. Interestingly, we have had numerous requests for our materials from not only cities, but State departmnts of transportation and citizen groups.

In addition, the Conference has also organized a series of training sessions designed to assist mayors and local officials to work more effectively with urban highway and transportation planning programs. An issue paper, "Transportation Decisions: The Role of the Mayor," is being submitted for the record for your review.

Mr. Chairman, the prospects for these reasonable decisions and a strong highway program for the eighties are enhanced by S. 2913, the proposed Federal-Aid Highway and Revenue Act of 1980, and by these early hearings designed to review key issues in anticipation of more detailed actions in the next Congress.

S. 2913 is a good start from the perspective of the Nation's cities. It rightfully recognizes that it is in the interest of the entire transportation system to promote further completion of the interstate, increased funding for the rehabilitation, resurfacing and restoration program, the addition of reconstruction as an eligible activity and increased authorizations for the bridge rehabilitation and replacement program. The sharp focus of S. 2913 on retention and enhancement of existing Federal investment is a timely and appropriate one—and the right one for cities.

We will also want to work with you, Mr. Chairman, to make sure that overall authorizations for the interstate and interstate substitutions will be adequate for cities to maintain the environmental impact and construction schedules under the 1978 legislation, a major concern of several cities.

The Conference also commends the chairman for proposing in S. 2913 an increase in the authorization levels for the Federal-aid urban system (FAUS) program from $800 million to $900 million per year. This is an outstanding move in the right direction, particularly given the substantial pressures which are now present in the allocation of Federal resources. It recognizes the vast potential which FAUS has for unique contributions to the urban transportation system.

The FAUS program is highly regarded by our cities. It is the only Federal highway program designed to truly reflect local needs and priorities.

Mr. Chairman, it is the intention of the Conference of Mayors to work with you over the next several months to make certain that the full potential of FAUS as an effective partner in urban transportation and economic development is realized.

The Department of Transportation, in the policy analysis leading up to development of its official proposals in this area, has suggested that one option to increase the effectiveness of the FAUS program would be to develop a "block grant" type of approach, allocating funds for this program directly to local governments.

Mr. Chairman, as you well know, the concept of providing FAUS funds directly to cities has been one hotly debated subject for several years. Recent correspondence to the Conference from the mayor of

Pittsburgh, chairman of our Subcommittee on Bridges and Safety, is representative of much of the information we have received on this program. It reflects accurately the nature of the problem in many cities and we are submitting it for your review. Recently, the Conference President, Mayor Richard Hatcher of Gary, Ind., hosted a meeting in his city in which senior officials of the Department of Transportation were told in great detail of some painful experiences in the problems of State-local relations in making FAUS work.

We recognize, however, that FAUS is a national program which will work well in some instances and less well in others, and that diversity in results will often be because of factors unrelated to this program.

Because of this, it is our desire this morning to suggest some very preliminary options for your consideration concerning the future of the FAUS program—some involving structural changes, other more in the nature of fine tuning. Briefly outlined, these include:

BLOCK GRANT APPROACH

This recognizes that in many areas the FAUS program is less an element of the State highway network than the urban transportation system. Direct allocation of funds to local governments for FAUS projects would eliminate an element of the bureaucracy and would speed the decisionmaking process and project completion. This could be initiated either on a phased or demonstration basis to determine on a small scale how it is working. Local governments could retain the option for the State to administer the program if they so chose.

A SECOND TIER OF FAUS—FORMULA

With respect to the block grant approach outlined above, the committee may wish to consider establishing a second tier of FAUS which would be directly allocated to local governments. This would provide the benefit of assisting cities in their efforts to use the FAUS program effectively without causing major changes in the entire program at once.

A THIRD TIER OF FAUS—DISCRETIONARY

Some cities have stated that because of the pressing demands on the FAUS program, there are never sufficient funds to put together major projects. One option would be to take whatever increases are deemed appropriate by the committee in the FAUS program and create a special second tier of FAUS which would be discretionary in nature, designed to provide critical help to major projects, and compatible with overall urban economic development type plans. This would provide that the Secretary, in consultation with the Congress and other agencies, would have the ability to inject a transportation element into major revitalization projects.

A NEW FAUS FORMULA

It may be appropriate to consider a new formula for the FAUS program for allocating funds to States or to local governments within

States. This could be viewed as a tool to make the FAUS program more relevant to transportation factors, environmental factors or issues relating to industrial or urban development. There is a broad range of factors which could be used to enhance FAUS, and the Conference would be eager to work with the committee on these. We recently have worked toward a thorough overview and reform of the formula for the distribution of transit operating assistance, moving substantially away from a solitary dependence on population. We would welcome the opportunity to take a serious look at improving the FAUS formula in the same manner.

PROMOTING LOCAL PRIORITIES

Should the committee ultimately decide to defer on the direct allocation issue, there is still the question of insuring that local priorities survive in the FAUS decisionmaking process. One way to accomplish this would be to require legislatively that the State choose projects which have been identified by localities as priorities and that at least the top priority, as identified by the local metropolitan planning organization process, be chosen. This would have the benefit of easing much of the State-local friction—the assertion that the localities often go through a formal, elaborate priority-setting process, only to watch the State choose projects which are not top priorities for other reasons.

CENTRAL CITY CONCERNS

Since central cities are often numerically outnumbered in metropolitan planning organizations, it may be useful to develop legislative language directing that central cities agree to the MPO stipulation of what local priorities are before MPO recommendations go forward.

The Conference of Mayors intends to convene a major meeting in February 1981 for the purpose of detailed review of proposals for highway reauthorization emanating from the Senate, the House, and the administration. We would welcome the participation of you and your staff in that important meeting.

Mr. Chairman, the Confernece of Mayors appreciates the opportunity to present our preliminary views to you. We look forward to continued cooperation with you toward development of an effective reauthorization of this critical program.

I would be pleased to respond to any questions you may have.

[Attachments to Mayor Marsh's statement follow:]

City of Pittsburgh
Richard S. Caliguiri, Mayor

August 25, 1980

Richard G. Hatcher, President
Transportation Committee
United States Conference of Mayors
1620 Eye Street, NW
Washington, DC 20006

RE: PROPOSED 1981 FEDERAL HIGHWAY LEGISLATION

Dear Mayor ~~Hatcher~~ Dick:

The City of Pittsburgh is dependent upon Federal Highway monies to rehabilitate and reconstruct roads and bridges vital for neighborhood community development as well as for economic development.

The single largest highway funding frustration is with the Federal Aid Urban Systems Funds. The Pittsburgh Region receives approximately $9.5 million annually which must be shared with Allegheny County, Beaver County, as well as with the Pennsylvania Department of Transportation. The competition for these funds is severe; for fiscal year 1980-81 there is about $50 million of critical road and bridge projects competing for about $20 million of accumulated FAUS funds. In addition to the scarcity of resource problem, there is a management problem in the releasing of funds. The FAUS program was intended to be used and initiated by local governments to serve local needs and reflect urban priorities. In Pennsylvania, all FAUS funds flow through the Pennsylvania Department of Transportation which is exercising its own priorities and fiscal management policies over all of the large metropolitan areas. Clearly, the State's intervention into the management of the FAUS funds is not consistent with the "locally initiated" concept which is the basis for the program. Therefore, the City of Pittsburgh strongly supports a block grant approach for the Federal Aid Urban Systems Funds similar to the Housing and Urban Development Community Development Block Grants. With the block grant approach, the cities would reduce State and Federal red tape and intervention. In addition, the FAUS distribution formula for funds should be recalculated placing greater importance upon need and urban system mileage, than upon population.

The second area of concern in future highway legislation deals with the completion of the Interstate Highway System "missing links". The current legislation sets a deadline of September 30, 1983 for submitting the environmental impact statements for these "missing links" with construction to begin prior to September 30, 1986. Given the City of Pittsburgh's need for completing the "missing links" and the severe fiscal restraints at the State and Federal levels, extensions to these dates should be provided. The "missing links" must be completed to preserve and enhance the City's economic climate and to maintain a vital downtown.

The third area of Federal Highway funding concern is that the two-year-old Critical Bridge Program continue to be funded in future Highway Acts. Expanding the funding of the program would further support the City of Pittsburgh's ambitious program of bridge repair and replacement and relieve some of the competition for the limited Federal Aid Urban Systems Funds.

Please consider our highway funding concerns in your discussions with the Department of Transportation and Congress. My staff is available to discuss these and other issues with the Conference of Mayors' Staff.

Sincerely,

Richard S. Caliguiri
Mayor

GE/jls

Interstate
CROSSROADS

Making Decisions on the Future of The Urban Interstate Highway System

Volume 1/Number 1

June, 1980

INTRODUCING "CROSSROADS"

This is the first issue of "Crossroads," a newsletter the U.S. Conference of Mayors will publish in the months ahead as local officials around the country make decisions on building segments of the Interstate highway system that are planned to go through or near their communities.

"Crossroads" is one part of a program that the Conference is conducting in conjunction with the Department of Transportation to help Mayors and other local officials understand and use the Interstate withdrawal process. The deadline for choosing Interstate withdrawals is September 30, 1983.

To assist cities meet this 1983 deadline, the Conference of Mayors' program contains a variety of publications and activities. "Crossroads" will be issued on an occasional basis to analyze and report on activities related to the withdrawal process. In this issue we describe the withdrawal process in general, provide background on all the withdrawals that have taken place to date, show funding levels for the duration of the Interstate transfer program, and present case studies of the successful withdrawals in Boston, the landmark case; and Omaha.

In addition to "Crossroads" we will soon be publishing a handbook on the new regulations, meeting with individual cities to help plan strategies, and convening two national sessions in Washington, D.C., one later this year and one in 1981, for those cities we have been identifying who are active in the withdrawal/substitution process.

If your city needs help, if you want further information on our program, or if you have ideas for future "Crossroads" articles, please contact Linda Gortmaker, Transportation Programs Staff Director, U.S. Conference of Mayors, 1620 Eye Street, N.W., Washington, D.C. 20006, (202) 293-5156.

INTERSTATE WITHDRAWALS AND SUBSTITUTIONS: A PROGRAM UPDATE

Since 1973, officials in 16 urban areas have made more than $8 billion in federal funds available for local street, highway, and transit projects by initia-

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INTERSTATE WITHDRAWALS
(In millions of dollars)
As Of December 31, 1979

	WHAT WAS WITHDRAWN			OBLIGATIONS TO 12/31/79		
URBANIZED AREA	MILEAGE	ESTIMATED BASE COSTS	AMOUNTS MADE AVAILABLE[2]	MASS TRANSIT	HIGHWAYS	NET AMOUNTS REMAINING
1. Boston	23.3	$ 603.2	$1420.0	705.0	—	715.0
2. Philadelphia	7.8	148.2	381.2	229.0	—	376.3
3. District of Columbia (DC, MD, VA)	14.8	1121.2	1738.0	1276.0	10.8	451.2
4. Hartford	13.5	189.4	434.1	5.6	10.2	418.2
5. Portland, Oregon	9.3	244.1	490.2	.5	29.5	460.2
6. Tucson	3.2	29.2	67.2	—	.8	66.4
7. Salem, Oregon	3.3	22.5	55.6	—	2.4	53.2
8. Chicago	19.6	1464.4	2485.8	12.7	132.7	2340.4
9. Denver	25.2	152.2	258.0	17.6	18.3	220.3
10. Albany	2.6	35.2	60.2	2.9	.8	56.5
11. Minneapolis	2.7	71.2	119.0	—	12.7	106.3
12. New York City	4.1	118.7	274.3	20.0	2.2	252.3
13. New York Metro Area (NJ)	2.1	38.7	61.7	—	—	61.7
14. Cleveland	7.9	147.9	255.3	—	—	255.3
15. Pittsburg	2.4	39.5	64.4	—	—	64.4
16. [illegible]	1.9	47.5	78.5	—	—	78.5
TOTALS	143.7	4480.4	8213.7	2268.1	216.3	5728.4

[1] All costs are in federal funds. [2] Net amounts remaining plus obligations (mass transit and highway).

SOURCE: Federal Highway Administration and Urban Mass Transportation Administration.

ting the withdrawal of nonessential segments of the interstate highway system. One hundred nineteen interstate segments remain uncompleted in urban areas. Their estimated cost is $19 billion. Some of them are unneeded and unwanted.

The U.S. Department of Transportation regulations on the interstate transfer provisions will be issued soon. When this occurs, the U.S. Conference of Mayors will release a handbook for local officials describing the program and how to use it. In the meantime, this newsletter provides basic information about the program. Future newsletters will highlight the final regulations and experiences by cities and states across the country as they use them.

Background

In the development of the Interstate System, some segments were originally included in it because federal funds were not then available for local street, highway, and transit alternatives. In other instances, segments were included because the planning process did not adequately assess the adverse effects on local communities and

INTERSTATE TRANSFER FUNDING
AVAILABLE FUNDS, FISCAL YEARS 1974 THROUGH 1981
(In millions of dollars)

	FY 74	FY 75	FY 76[1]	FY 77	FY 78	FY 79	FY 80	FY 81[2]
Authorized Funding Level[3] by Congress	751.4	680.4	2301.4	1449.5	2310.5	3272.1	3258.8	--
Program Funding Level[4] (Budget Authority)	57.0	65.7	628.5	575.0	789.3	730.3	790.0	725.0
UMTA/FHWA Obligations for Approved Projects	67.0	65.7	553.1	409.4	566.7	690.7	103.0[5]	--

[1] Includes the Transition Quarter

[2] Proposed in President's FY 81 Budget

[3] Equal to the sum of the unobligated balances of all approved withdrawals as of the beginning of each fiscal year

[4] Funding level approved by the Congress and the Office of Management and Budget under contract authority in FY 79

[5] As of April 30, 1980

SOURCE: Urban Mass Transportation Administration

their people. These segments commonly were located in urban areas, and many of them became highly controversial.

This happened in Boston, and out of it came the 1973 amendment authorizing the withdrawal of nonessential urban segments of the Interstate System and the substitution of public mass transportation or local highway projects. The Boston experience is described on pages 4-7 of this newsletter.

The federal share of the cost of substitute projects is 85 percent. The federal funds authorized to be appropriated equal the estimated cost to the federal government of completing the withdrawn segment, adjusted for later changes in federal-aid highway costs. The table on page 3 shows how funding levels have grown since 1974. Although the initial emphasis was upon the resolution of controversies and substitute transit projects, there is increasing interest in using these funds for much-needed local streets and highways. This trend is exemplified by Omaha as described on page 7 and a complete breakdown on how cities have spent substitute funds is included in the table on page 2.

Important Dates

According to the enabling legislation, there are two important statutory deadlines to remember:

o September 30, 1983

-- Uncompleted segments will be dropped from the Interstate System unless an environmental impact statement has been submitted to the Federal Highway Administration by this date.

-- Withdrawals and concept programs describing generally the substitute projects cannot be approved by the U.S. Department of Transportation after this date.

-- Substitute projects cannot be approved after this date unless they appear in an approved concept program.

- September 30, 1986
  -- Uncompleted Interstate segments and substitute projects must be under construction contract by this date.

Procedure

Here is the general procedure for making withdrawals as described in the law. More detailed steps are included in the regulations that are due to be finalized soon:

1. A withdrawal request is sent jointly by the Governor and local governments to the Federal Highway Administration. The metropolitan planning organization in an area must concur in this step.
2. The U.S. Department of Transportation may approve the request if the segment is determined to not be essential to the completion of a unified and connected Interstate System. National defense impacts must also be considered.
3. Withdrawal authorizes appropriation by the Congress of funds for substitute projects.
4. Substitute projects must appear in an area's Transportation Improvement Program. Projects are approved by the Federal Highway Administration or the Urban Mass Transportation Administration in accordance with the usual policies and procedures.

Eligible Withdrawals

Generally, any uncompleted urban segment of the Interstate System that is not essential to a unified or connected System may be withdrawn, provided that it has not been opened to traffic and that a toll road will not be built to replace it.

Eligible Substitutions

Substitute projects may be --

- highway projects on or serving any federal-aid highway, including those serving, but not on, the Interstate System; bridge rehabilitation and replacement; traffic control devices; bus and carpool lanes; and bus shelters, bus loading areas, park-and-ride lots, and related facilities.
- public transportation projects, including the construction of fixed rail facilities and the purchase of rail cars and buses. The extent to which other mass transportation projects, such as the construction of bus maintenance facilities, are eligible is under discussion.

INTERSTATE TRANSFER: IT ALL BEGAN IN BOSTON

An unlikely coalition of academicians, clergymen, community leaders, elected local officials, civil rights activists, preservationists, and neighborhood people brought about a moratorium on major highway construction in the Boston area and an evaluation of the impact of

best copy available

the proposed highways on a wide range of regional, community, and neighborhood issues.

That evaluation led to the elimination of 26 miles of planned freeways and the strengthening of the regional mass transportation system. It also led the Massachusetts Congressional delegation to propose a 1973 amendment to federal-aid highway legislation that authorized the withdrawal of non-essential segments of the Interstate highway system and the use of equivalent Federal funds for other local public transportation projects.

The story begins in 1948, when the Massachusetts Department of Public Works unveiled plans for an Inner Beltway around Boston. These plans lay dormant until the Interstate System segments were authorized in 1956. In the 1960s, the highway plan was broadened to include the construction of I-95 through Boston and its suburbs and other interstate and connector routes.

Overall, these plans would have destroyed 5,000 dwelling units, occupied mainly by low-income families; displaced 4,600 jobs, and disrupted long-established neighborhoods. They would have overtaxed local street capacity and required Boston to double its supply of off-street parking. They would have cut through public parkland and a wildlife refuge.

Protests

The first protests were heard in 1960, when 2,500 Cambridge residents voiced opposition to a portion of the Inner Beltway in that city. By 1964, the fight over the Inner Beltway -- principally over its location, though some now questioned the need for it -- was in full swing. Its intensity increased when, in 1966, the non-profit Urban Planning Aid group was formed, as an advocacy organization for those who felt they were unrepresented in the planning process, to study not only the Inner Beltway, but the whole metropolitan area highway plan.

A report by the Urban Planning Aid group identified serious deficiencies in the highway planning process, including an imbalance between the proposed highway and mass transportation systems, failure to consider adequately the impact of the planned highways on community life and the environment, and the encouragement which the plan gave to urban sprawl. The report called for a moratorium on highway construction until these issues could be addressed.

In the period following the Urban Planning Aid report, the protests of Harvard and Massachusetts Institute of Technology (MIT) faculty and staff members and of local elected officials brought the movement into the academic and political communities. These groups, directing their efforts initially against the Inner Beltway, soon involved residents of Roxbury and other neighborhoods that would be affected by I-95. In 1968, residents of East Boston, threatened not only by I-95, but also by Logan Airport and industrial expansion, entered the coalition, now formalized as the Greater Boston Committee on the Transportation Crisis (GBC).

People Before Highways

Early in 1969, GBC organized a People Before Highways Day demonstration on the Boston Common, during which a group from that organization met with the newly-inaugurated Governor of Massachusetts. By now the coalition had a broad base. It included professional planners and skilled political strategists, community leaders, and neighborhood activists. It was supported actively by elected officials, suburban liberals, social action groups, and conservationists. It embraced moderates and militants, intellectuals and drop-outs, Blacks and whites, Protestants and Catholics, those who wanted the freeways redesigned and those who wanted them stopped. The demonstration brought these diverse interests into a more permanent alliance and showed fully the regional and political nature of the issues. On the other side stood only the contractors, building trades, and chambers of commerce.

A Moratorium on Highway Construction

The Greater Boston Committee secured the Governor's commitment to the appointment of a Task Force to review the highway planning and decision-making process. As a result of its study, the Task Force joined the GBC, the Mayor and City Council of Boston, and other officials and community groups in urging that the Governor declare a moratorium on major highway construction until a detailed study could be made of the full range of issues that had been raised.

That moratorium was announced February 11, 1970. The Boston Transportation Planning Review was organized and asked by the Governor to make an objective analysis of the value of each possible transportation project considered in the light of unavoidable adverse effects. The process "was to be open, broadly participatory, and fully compatible with the emerging Federal and State policies with respect to transportation, socio-economic, and environmental values."(1)

A New Transportation Policy

The Governor's Policy Statement on Transportation in the Boston Region reflected the results of the planning review. It called for --

- Elimination of 26 miles of planned freeways.
- Improvement to existing highways and construction of a special 2-lane truck and bus tunnel between downtown Boston and Logan Airport.
- Rapid transit, commuter rail, and bus improvements and modernization.
- State aid to regional mass transportation systems.
- A freeze on the commercial parking supply in downtown Boston and at Logan Airport.
- Development of already-cleared land in the southwest I-95 corridor through an open and fully-participatory process.

This policy statement remains the basic long-range guide to highway and mass transportation development in the Boston region.

Interstate Withdrawals

On March 26, 1974, the Governor, citing the Planning Review report and the nearly unanimous support of regional planning agencies and local officials, asked the U.S. Secretary of Transportation to withdraw three Interstate segments, totalling 25.9 miles, because the state believed they were not essential to a unified and connected Interstate System and to redesignate certain portions of existing highways as Interstate routes. The Federal share of the cost of these projects was then estimated to be $666.3 million. The request was approved in May, 1974.

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(1) Governor Francis W. Sargent, Policy Statement on Transportation in the Boston Region, Mimeo., November 30, 1972.

Substitute Projects

Under the cost escalation provisions of Federal law, the amount authorized to be appropriated for susbstitute projects stood at $1.42 billion at the end of 1979, of which $705 million had been approved and $715 million remains to be committed through 1985. Federal funds will be matched with $251 million to be provided by the Comonwealth of Massachusetts.

Substitute projects include the improvement, extension, and relocation of rapid transit lines, the rebuilding and purchase of rapid transit cars, and related planning and technical studies.

The special truck and bus tunnel to Logan Airport, known locally as the Third Harbor Tunnel, is currently on the Interstate System, but is the subject of controversy between the State and the City of Boston.

The approved Interstate System in the Boston area is now 94 percent complete, and no further potential exists for withdrawals, unless the Third Harbor Tunnel falls by the wayside before the 1983 deadline on withdrawal approvals.

Surplus Land

A substantial portion of the land required for I-95 in the southwest corridor was cleared and the residents relocated prior to the withdrawal of this segment of the Interstate System. Under Federal law, this land may be used or sold for a public purpose without repayment of the Federal share of its cost.

Some of this land will be used directly for transportation purposes in the relocation of an existing rapid transit line and reconstruction of commuter railroad and Amtrak facilities. Some will be used for parkland and community facilities. Fee simple title in the remainder is being transferred to the Boston Redevelopment Authority and the Boston Economic Development Industries Corporation, at a written-down value, for carefully-planned residential, commercial, and industrial uses.

OMAHA GETS TWO HIGHWAYS FOR THE PRICE OF ONE

The Nebraska Department of Roads last year initiated action to withdraw the only uncompleted segment of its Interstate highway network. The funds made available by the withdrawal of 1.91 miles of I-580 in Omaha, now estimated to cost $64.1 million, will build an expressway on the same alignment and a connection from it to the City's airport.

For 30 years, Omaha had planned to build an expressway north from its central business district, but funds for it had not been available. In 1974, the State asked the Federal Highway Administration to place this six-mile route on the Interstate System as a connector between I-480 and I-680.

During location hearings in 1975, it was clear that there was total community opposition to the northernmost three miles of the route, which would pass through the former City of Florence, now part of Omaha. Since alternate connecting routes already existed, the State, at the request of the Omaha City Council, revised its request to cover only a 3.22-mile spur, north from I-480, which would connect with US-73 and with an airport expressway to be built by the City. The Federal Highway Administration approved the spur, designated I-580, in April 1976, and 1.31 miles were later completed.

When it became evident late in 1978 that the funds apportioned for the remaining 1.91 miles of I-580 could not be committed before they lapsed, the State Department of Roads, after informal discussions with the Federal Highway Administration, proposed to the City the deletion of I-580 from the Interstate System and the substitution of an expressway for the uncompleted portion.

The City welcomed this change for several reasons:

- Savings of some $20 million could be made by designing the road to expressway, rather than to Interstate, standards.
- The social and environmental impacts of the much simpler interchange with US-73 and the airport expressway would be less. There would be 160 fewer homes taken, and fewer small businesses disrupted.
- There would be no significant disadvantages to the users of the facility. Traffic would move at an acceptable level or better.
- Funds would finally become available for the airport expressway and, to a limited extent, for other local highway projects.

The last point is of major significance because, although the airport connection was an integral part of the arrangement under which I-580 was placed in the Interstate System, the City had been unable to fund its share of the expressway costs. Only $2 million of Federal-Aid Urban System funds -- one-half of the entire apportionment to Nebraska -- were available annually to the City of Omaha.

The Omaha City Council approved the withdrawal in April 1979, and the Omaha-Council Bluffs Metropolitan Area Planning Agency concurred in July. The withdrawal was requested by the Governor and Mayor on July 26, 1979, and approved by the U.S. Department of Transportation on December 14. Final design of the expressway substitute for I-580 is underway. Completion of it and the airport expressway is scheduled for 1986.

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Senator Bentsen. Thank you very much, Mr. Mayor.

Commissioner Orr, I am looking at the authorization for the secondary road program contained in S. 2913. In fact, we increased the authorization for the secondary. It is on page 2 of the bill. In section 103 we increased from $400 to $500 million, and added an additional amount in 1983 up to $600 million because of our shared concern with you.

To get to this question of the secondary system bridges, and you cite the staggering relationship—did you say 7½ times as many bridges?

Mr. Orr. Yes.

Senator Bentsen. The concern always is the limitation of funds and what we have available, and obviously what you have available to accomplish your responsibilities. What we are facing in bridges in this country is just a staggering responsibility. The deteriorating and unsafe bridges, we are looking at a monumental task in trying to accomplish a remedy for that.

You propose some rather interesting means of raising revenue. I would appreciate it, and I know this committee would, if you could further define them. You gave a generalized approach to raising revenue. Trying to get that down to hard numbers can be very, very difficult.

Mr. Orr. We intend to give it the college try.

Senator Bentsen. Mr. Mayor, we particularly appreciate your comments.

I am delighted to see we have the chairman of the full committee here. I would turn to him for any comments he might have.

Senator Randolph. Thank you, Mr. Chairman. I regret that other commitments have kept me from this important session, and I am glad to come by now. I will read, of course, the testimony of the witnesses.

Mr. Orr, is it through the counties that you have testified?

Mr. Orr. Yes, sir.

Senator Randolph. How many counties in the United States?

Mr. Orr. About 3,000.

Senator Randolph. Mayor Marsh, you speak for the Conference of Mayors. How many mayors are there in the United States?

Mayor Marsh. About 800 in the U.S. Conference of Mayors, and many more than that in the country. We are the mayors of the largest cities in the country, those with over 30,000 population.

Senator Randolph. You wouldn't have too many from West Virginia.

Mayor Marsh. The chairman of our Energy and Environment Committee was John Hutchinson before he was elected to Congress. We are grateful for your leadership in helping to get this bill initially. You may not have many large cities, but you are certainly a favorite among the mayors for your very important contribution in this area.

Senator Randolph. I am very glad to share with you, Mr. Chairman and ranking minority member, in the listening and questioning of the witnesses. I think I may have some questions later, but I certainly appreciate your giving me the opportunity to welcome the people who speak for important segments of elected men and women throughout the country. You are elected to the positions you hold; is that correct?

Mr. Orr. Yes, sir.

Mayor Marsh. Yes, sir.

Senator **Randolph**. Thank you.

Senator **Bentsen**. Commissioner Orr.

Mr. **Orr**. Mr. Chairman, I appreciate the comments you make, and we do represent 3,000 counties which make up this great Nation, which is basically the population. I think too many people forget, whether they are county commissions, board of supervisors, whatever they are called around the country, that we do serve all people. We serve all people in Dallas County as well as the city of Dallas proper. I think too many people think of counties as strictly rural. We serve all the people, whether it be 2 million in the county of Dallas or 250 in the county of Loving. When you talk about counties, it is all encompassing. The cities do not serve the county.

Senator **Bentsen**. You all can discuss that later.

Senator Stafford?

Senator **Stafford**. Well, I was reflecting, Mr. Chairman, after what the witness just said that apparently service to all the people of all the counties didn't extend to the Redskins football team last night.

Mr. **Orr**. Well, some of us have two voices.

Senator **Stafford**. Let me ask the witnesses one or two short questions.

States and localities continue to express frustration over increasing Federal regulations and redtape. Are there any specific areas where these problems can be reduced or the process made more efficient? Would either one of you care to respond to that?

Mr. **Orr**. I will try.

Senator **Stafford**. If you would rather do it in writing, we could do that.

Mr. **Orr**. We would be happy to do that. I was going to say the Department of Transportation representatives were in my area about 2 weeks ago and invited me along with city people from Fort Worth and Dallas to talk about redtape and how long it took to build a highway.

I wish I knew the complete answer as to how we could cut down redtape. I think the issues has been described by the Governor in his testimony. It is difficult to try to take one pair of trousers and fit the whole USA. Some of us have different needs. We will try to respond to that and give you some specifics in writing as to how we can cut down on redtape.

Mayor **Marsh**. Senator Stafford, we have had a very positive experience with the Administration. You have probably heard of the problems we have had with a highway which probably would have destroyed the city if it had been built as proposed. The Administration, primarily because of the regulations, has worked with us to the point where we are now negotiationg with States and other localities to fashion a solution which would give the city a change to survive. So we don't object to regulation per se. We recognize in order to administer a national program to fulfill national priorities there must be administration and some inconvenience to some people. I am not suggesting it is perfect, but I don't think it would be helpful to do away with all of the redtape, because some of that redtape is insuring that the will of Congress will be implemented. We have had a very good experience with the Administration in solving the problem in Richmond.

Senator Stafford. Thank you both.

In your testimony, Mr. Orr, you describe the potential impact of energy development on the highway system, particularly the impact of coal hauling. Where do you believe should the responsibility lie for maintaining and rehabilitating roads which have deteriorated as a result of energy development?

Mr. Orr. Well, I am sure all of us have got a little piece of that. I would say it has to be a good partnership between all concerns—Federal, State and local. I think we all benefit and we all have a certain amount of liability.

Senator Stafford. Thank you. Let me ask one last question of both our distinguished witnesses.

Do you foresee any problems with collecting and administering an ad valorem tax or an indexed tax?

Mayor Marsh. My answer would be yes, there is always a problem with collecting and administering a tax. I think there is a growing recognition of the importance of the highways and bridges to the people. The State of Virginia increased the gasoline tax 2 cents and it occupied the full attention of the general assembly for the entire session. I think it is going to be difficult to do that, but if the public is properly informed, I believe that they would support it.

Senator Stafford. Mr. Orr?

Mr. Orr. Senator, I believe the same thing. I believe Chairman Bentsen had the right approach when he said if people knew it was going to be used to maintain, rehabilitate, they would be willing to pay. In fact, one of the messages we use on the local level when we are trying to pass a bond, we put up a sign that says "If you vote for the bond issue, this road won't have so many potholes in it." So if the people know what they are going to get for the money they are spending, I think they will support it.

Senator Stafford. Thank you.

Senator Bentsen. Mayor, you made a comment about better cooperation between State and local governments. Do you have a particular suggestion for legislative action that would bring about such cooperation?

Mayor Marsh. I made some suggestions in my testimony that language should be inserted in the legislation to give recognition to the situations where inner cities may be submerged in the MPO process, or the concerns of inner cities or cities and localities generally may be lost in the State political process. I think if we had those tools in the legislation, it would help bring about that kind of cooperation. Right now we aren't dealing as equals. In my opinion, the localities are in an inferior position. It would be helpful if the legislation could be strengthened, and we will submit something in writing on this. But notwithstanding all of the regulations in the legislation, it depends on the attitude and good will of all the parties. I think that is there, but right now the localities need a few more bargaining chips.

Senator Bentsen. I don't recall your commenting, either of you, on the permanence of the highway trust fund. I would like to hear your position on that.

Mr. Orr. I think this is necessary. As you put it in the beginning, I don't know where this country would be if we didn't have the great interstate system. It really bothers me when I drive down the interstate highways in my area and I see the deterioration. You talk to the State highway people and they say, "We are sorry, we don't have enough money to maintain, let alone rebuild." I think we have to maintain them for the survival of this country.

Mayor **Marsh.** The U.S. Conference of Mayors supports the maintenance of the fund. We recognize we have the greatest highway system in the world. It is the role of elected officials to plan long range. If we are to meet the needs in the future, we must maintain the system.

Senator **Bentsen.** Unless there are other questions, we have a number of other witnesses. We appreciate your comments very much, gentlemen.

Our next panel will be Mr. Owen Emme, Associated General Contractors and president of Summit, Inc., Rapid City, S. Dak.; Mr. William Eline, chairman, American Road and Transportation Builders Association and General Motors Corp., Hudson, Ohio; Mr. J. C. Landen, vice chairman, Highway Users Federation and group vice president of 3M Co., Washington, D.C. He is accompanied by Mr. Peter Koltnow, president, Highway Users Federation, Washington, D.C.

Gentlemen, we are very pleased to have you here.

Senator **Pressler.** Mr. Chairman, I am very pleased that Mr. Owen Emme is here from my home State. I might say Mr. Emme is president of Summit, Inc., in Rapid City. We welcome him here and look forward to hearing his testimony. I just wanted to especially welcome you, and all of you.

Senator **Bentsen.** Mr. Emme, if you would proceed, please.

STATEMENTS OF OWEN H. EMME, ASSOCIATED GENERAL CONTRACTORS; ACCOMPANIED BY JOHN GENTILLE, NATIONAL STAFF, ASSOCIATED GENERAL CONTRACTORS; WILLIAM B. ELINE, CHAIRMAN, AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION; ACCOMPANIED BY DANIEL J. HANSON, SR., PRESIDENT, AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION; AND J. C. LANDEN, VICE CHAIRMAN, HIGHWAY USERS FEDERATION; ACCOMPANIED BY PETER G. KOLTNOW, PRESIDENT, HIGHWAY USERS FEDERATION

Mr. **Emme.** Thank you.

Mr. Chairman, members of the subcommittee, my name is Owen Emme. I am a highway contractor from Rapid City, S. Dak., appearing here today on behalf of the Associated General Contractors of America. I am accompanied by John Gentille, on my left, who is with the association's national staff.

Mr. Chairman, I am here to voice the AGC's appreciation for being provided the opportunity to address the subcommittee on the critical problems facing the Federal-aid highway program today. I am also here to commend you, Mr. Chairman, for beginning this dialog in such a timely fashion. We hope, as does everyone else in this hearing room, that these deliberations will lead to the eventual solution of those critical problems. I must point out, however, the AGC's strong concerns that the cost of preserving and improving one of our country's greatest resources—its highway system—while recognized in S. 2913, will not be met by the obligational ceiling levels of the magnitude anticipated by the bill, admittedly the highest in the history of these artificially imposed restraints, or S. 2913's proposed switch from a 4 cents per gallon motor fuel tax to a four-percent advalorem tax, which, we fear, falls short of the mark.

I would respectfully suggest that this assessment is not ours alone. Anyone who drives a car today knows firsthand that our highways and bridges are deteriorating faster than they are being repaired or replaced. My own State is typical.

Despite the aggressive efforts of the South Dakota Department of Transportation, 1 in every 3 miles of highway in the State needs to be either resurfaced or rebuilt right now.

Our bridges are in equally serious condition. Nearly one in every three is either too weak or too narrow to handle the traffic allowed on the connecting highways. The situation becomes even more acute when the vehicles using these deficient bridges are emergency vehicles, farm trucks or school buses.

I submit that if the popular notion is true, that recognition of a problem puts us halfway on the road to solving it, then we must be pretty lucky in South Dakota to have such a full understanding of the problems facing our transportation system there. Unfortunately, South Dakota's prospects are for even greater needs in the years ahead.

Right now, we in South Dakota are spending only about half of what is necessary to maintain this obviously substandard status quo, even though we have added 3 cents to our State gas tax just this year. We strongly feel that unless the Federal Government addresses itself now to the immediate need for increased highway revenues, the cost to South Dakota will, despite our efforts, only grow in lost time, wasted fuel and automobile repairs.

Mr. Chairman, the States are doing their part. I submit for the record as an attachment to this testimony a report just released by The Road Information Program outlining the efforts underway at the State level to increase highway revenues. (See p. 239.)

As a South Dakota motorist I have to navigate routes around weight-restricted or closed bridges. I have to negotiate potholed and rutted roadways. And, according to The Road Information Program, this forces me to pay a nearly $80 a year "bad road" penalty in wasted fuel, tire wear, and vehicle repair costs.

With fuel consumption in South Dakota hovering at the 800 gallons a year mark for each driver in the State, according to the Federal Highway Administration, that $80 extra could be viewed as an additional 10-cents-per-gallon tax which I have no choice but to pay, thanks to the condition of the highways and bridges in my State.

Compounding the problems is that, unlike the 16 cents in Federal and recently increased State motor fuel taxes I pay for every gallon of gas I buy, this 10-cent tax literally contributes to nothing.

And South Dakota is certainly not unique in its dilemma—a national dilemma brought on by increasing needs and decreasing revenues. I submit that both situations have resulted from neglect. As a Nation we have neglected the needs of the highway system's physical plant, and we have ignored the decreasing buying power of a Federal gas tax last increased in 1959.

In his economic program for the eighties, released 2 weeks ago, President Carter spoke of three key elements necessary to get our country out of the oil-induced economic recession we are facing today, an economic slowdown which has affected no sector of our economy as seriously as it has affected transportation.

President Carter spoke of "reindustrializing" our country, reducing unemployment, and conserving energy. We at AGC believe that, in each case, it is transportation which can and should lead the way.

First, any effort to reindustrialize must recognize the indelible link between the production of goods and the capability to transport them. The Nation's highways carry 100 percent of all livestock shipped to major markets, and nearly all fresh fruits, vegetables, clothing, textiles, leather goods, meat and dairy products. In all, highways carry 21 percent of all intercity ton-miles of freight, nearly 100 percent of all intercity goods, and 85 percent of all passenger miles.

No port facility could operate without highways, no plant would be built without access to highways, a product's competitive edge can swing on its transportation costs, and bad roads inflate those costs. Mr. Chairman, 2 weeks ago President Carter spoke of "expanding public investment to revitalize America," so that we can "produce more, export more, invent more and employ more." We submit that the keystone of such an effort must be the preservation and improvement of our Nation's highway system.

Second, the President spoke of unemployment. According to the Bureau of Labor Statistics, overall unemployment in the country is now nearly at 8 percent. Unemployment in construction, however, remains at twice that. I would suggest that just as the existence of good roads will spur business development and investment, so too will the building, reconstruction and improvement of those roads create jobs.

Department of Transportation and Federal Highway Administration construction reports data indicate that each million dollars spent on highway construction creates between 84 and 100 jobs. President Carter said that his economic program for the eighties was "designed both to reduce unemployment in the short term by accelerating the recovery from the recession and to address the long-term needs of the economy." Clearly, an increased highway program can serve as the cutting edge of that program.

Finally, the President spoke of energy conservation. As I have found in driving those South Dakota roads, there is a direct relationship between bad roads and increased fuel use. According to various research agencies, a bad road can increase fuel consumption by more than 50 percent. If, as President Carter said, the "first priority of our national energy policy should be greater conservation," which he described as "the surest, cheapest and cleanest way to reduce our dependence on imported oil," then we all might want to begin giving as much attention to our crumbling interstate highway system as we gave to Alaska's North Slope. In a research report prepared by a joint committee of the American Association of State Highway and Transportation Officials, the AGC, and the American Road and Transportation

Builders, entitled "Conserving Energy Through Improved Highways," it was determined that 12.5 billion gallons of gasoline, equaling about 300 million barrels of oil, are wasted annually over our Nation's bad roads. Mr. Chairman, that report is attached to our testimony and we would request that it be submitted for the record.

Senator Bentsen. Without objection, that will be done. (See p. 257.)

Mr. Emme. Thank you.

Increased highway and bridge construction, reconstruction and improvement are, without a doubt, key ingredients in the "reindustrialization" of America. But how much of an increase should there be? And what will be the cost?

Rather than dwelling on subjectively recorded or out-of-date reports regarding the condition of the Nation's highways, or waiting for the results of the highway performance monitoring study due out shortly, I believe it is possible to get an idea of adequate program levels by looking at this past year's actual actual Federal-aid highway program activity.

Despite the chaotic program funding upheavals which saw the 1980 obligational ceiling go from $8.75 billion to $7.6 billion and then get a final cap of $7.8 billion, the States still could have obligated between $11 and $12 billion worth of Federal-aid highway construction, according to AASHTO.

In our opinion, this $11 to $12 billion "natural" range of activity in 1980 clearly points to the need for an immediate program level of $12 billion at the very least, with program levels increasing to $16 to $18 billion within the next 5 years.

Despite AGC's total agreement with S. 2913's many worthwhile and well-thought-out provisions, such as an increased bridge program, an expanded 4-R interstate program and a continued secondary program—which, I might add, is a better approach than the "being explored" by the Department of Transportation which would turn that system back to the States without any financial aid, sort of bequeathing "miles without money"—despite our strong support for these provisions, we hope the subcommittee will see fit to set an obligational ceiling equal to the $12 billion program capability which, in fact, already exists.

Finally, there is the crucial and controversial issue of an appropriate funding mechanism. At present levels, with the four-cents-per-gallon motor fuels tax serving as the backbone of the Highway Trust Fund and with each penny generating about $1 billion, we can optimistically expect revenues this year in the neighborhood of $8 billion—some $4 billion short of what we feel the States have already shown to be a necessary program level.

In our opinion, a switch to a 4-percent tax, with the wholesale price of gasoline now at or under a dollar, would only be a new mechanism for collecting the same amount of revenue. And there are even some who feel that such a percentage tax will actually yield less revenue to the Highway Trust Fund, since it will require more paperwork, as well as extensive administrative efforts associated with setting and collecting such a tax.

It is AGC's position that if Congress were to enact a 4-percent tax a part of this legislation, or any percentage tax for that matter, it should be done on top of, and not in lieu of, the current four-cent tax.

The AGC would also strongly support at the least a straight and immediate four-cent increase in the current motor fuel tax. In other words, we believe the needs justify, indeed demand, that an effective, immediate doubling of the current motor fuel tax be the absolute minimum increase deemed acceptable at this juncture. A lesser amount will simply fail to do the job.

Regardless of the financing mechanism decided upon by the Congress, the AGC suggests that any increased funding level be achieved through what we would term a "phased-in" approach; that is, a graduated increase in user tax revenues coupled with a corresponding "draw down" of the cash balance in the Highway Trust Fund.

Such an approach would have two obvious benefits. First, it would cushion the impact of any tax increase on the highway user, and second, it would insure that the Highway Trust Fund would once again be used for its legislated purposes and not as a "savings and loan association" for the rest of the Federal Government. Knowledgeable individuals have indicated to us that a balance of $2 billion in the fund is all that is really necessary for cash flow purposes.

We also consider it imperative that the Highway Trust Fund be made permanent. There must always be a secure method of financing our Nation's highway construction needs and the highway user orientation of the Trust Fund makes it one of the most equitable taxes on the books.

Additionally, we consider it not only imperative but eminently fair and equitable that when a fuel—any fuel—propels a vehicle over the road, that fuel should be taxed. If Congress wants to provide incentives for gasohol production, that is fine. But let the energy program foot the bill, not the highway program.

Finally, Mr. Chairman, I would argue that by keeping our highway network at a level of condition that provides the user with a safe, smooth, and efficient trip, we are actually lowering his vehicle operating costs by amounts which equal, and in most cases exceed, the taxes he pays for each trip he makes. Keeping the highway system in good and safe operating condition, therefore, is not inflationary because it conserves the public and private investment, and adds value to the national economy, rather than subtracting from it. I only wish I could say the same for the myriad of social and economic programs currently being implemented by the Federal Government through the Federal-aid highway program. The subcommittee knows the industry's positions on these programs. We have brought our concerns to you before, and we will continue to do so in the future. I am sure the members of the subcommittee are very much aware of the tremendous amount of apprehension and resentment that has resulted from the Department of Transportation's issuance of its minority busines enterprise regulation on March 31 of this year.

AGC's concerns over the regulation are so great that we have taken those concerns into a court of law. And so have concerned individuals in at least two States. Many, many States have advised DOT that this regulation forces them to violate their State bid laws. AASHTO has formally requested that the regulation, as issued, be withdrawn. We respectfully submit that Congress cannot ignore this critical problem any longer. It must not stand idly by as the Department of Transportation forces a counterproductive and poorly thought out regulation down the throats of the States, and does so in a manner that totally ignores and destroys the competitive bidding process. Surely DOT regulation which requires the States to award construction contracts to other than the low, responsible bidder will not go down in history as one of the Government's more successful efforts at controlling inflation.

That concludes my remarks, Mr. Chairman. Thank you once again for allowing me to be with you.

Senator **Bentsen**. Thank you very much. I would like for you to detail for us—I think it would be helpful—your comment about the myriad of social and economic programs currently being implemented by the Federal Government through the Federal-aid highway program. If you would give us that for the record, that would be helpful.

Mr. **Emme**. Yes, sir, we would be happy to.

Senator **Bentsen**. Our next witness is Mr. William Eline.

Senator **Pressler**. Mr. Chairman, will we have questions later?

Senator **Bentsen**. Yes; we will wait until we have heard all the statements, then have questions.

Please go ahead, sir.

STATEMENT OF WILLIAM B. ELINE

Mr. **Eline**. Mr. Chairman and members of the committee, my name is William B. Eline, and I am the general sales manager of Terex Division, General Motors Corp., Hudson, Ohio. I am here today in my capacity as chairman of the American Road and Transportation Builders Association. ARTBA is a national association dedicated to transportation betterment, with headquarters located in Washington, D.C. Accompanying me today is the president of ARTBA, Daniel J. Hanson, Sr.

We wish to commend you, Mr. Chairman, for introducing this bill and holding hearings at this time in order to elicit views on the substance of legislation to be considered early in 1981. The needs of the highway program are immense and this an appropriate time to begin the legislative process.

Our testimony today covers a synopsis of our association's views as to the content of the 1981 highway legislation. We have supplemented this testimony with several supporting documents, which include:

1. ARTBA's current statement of policy, as approved by the members at our annual convention in February 1980.
2. ARTBA's response to the Federal Highway Administration's Discussion Paper No. 1, dated June 26, 1980. This discussion paper provided the basis for Federal Highway Administrator John Hassell's testimony to the subcommittee on August 19, 1980.
3. A copy of our 1980 "Are You For Better Transportation?" congressional questionnaire on transportation funding. To date, over 120 responses have been received from Senators and House Members.

Also pertinent to our testimony is a recent research publication from the General Motors Research Laboratories. This report is entitled "The Impact of Inflation Upon Highway Maintenance and Construction Costs," and will be presented to the Congress by January 1981.

The construction costs can be expected to increase about 1.5 times as fast as inflation in the general economy, as measured by the Producers Price Index.

The findings with respect to highway maintenance costs are somewhat less alarming. The expected annual inflation rate for maintenance costs is about one-half the general wholesale inflation rate plus about 4 percent.

These are the historic trends. It is imperative that all of us who are concerned with highway development are well aware of these facts.

Senator BENTSEN. Let me interrupt if I might. I have a conflict in my schedule this morning. We are fortunate to have the chairman of the full committee here to chair this.

I want to say to Mr. Emme I have heard some very disturbing things about the abuses under the minority regulation, and we are going to have to take a look at that to see what we can do to accomplish the good objectives, I am sure, in the legislation. But some of the reports I hear lead to some very uneconomic results so far as the taxpayers of the country are concerned.

Senator RANDOLPH [presiding]. Thank you, Mr. Chairman. I am, of course, gratified to help our chairman out and to participate in the subcommittee hearing.

Mr. Eline, will you continue, please.

Mr. ELINE. Thank you, I will.

We must make every possible effort, in the future, to restrain the inflationary costs which are dramatically affecting the entire highway program.

Providing a stable program level is one of the most important management actions that can be taken to restrain inflation. By its nature, the highway construction program reacts very unfavorably to "peak-and-valley" programing.

We recognize a need to restrain Federal spending, and claim no special exemption for the highway program. We do point out, however, that efforts to fine-tune the economy by adjusting the level of the highway program have always been historically very unsuccessful in the past.

Reducing hidden program costs is another way to curtail highway inflation. Over a period of years, the Federal Government has added many requirements which have the effect of increasing program costs. While some of these requirements may be beneficial, it is important in a time of economic austerity to reexamine them to see if they are still affordable.

The Davis-Bacon Act sets minimum wage rates for construction workers which are far in excess of the minimum wages for workers in other industries. The continued existence of the Davis-Bacon Act is an economic waste.

As of August 1, 1980, the Federal-aid highway program is operating under regulations promulgated by the Department of Transportation to insure wider participation by minority business enterprise. The essential objection to these regulations is that they may require State and local agencies to award contracts to other than the low bidders under certain circumstances. Failure to accept the best price available is clearly an economic waste.

Further, it is time for reexamination of traditional concepts of highway design and the time-tested methods of construction. This is a task which the highway agencies and the highway industry must address together in the immediate future.

The FHWA discussion paper referenced earlier pointed out that the pinch in highway funding is threatening the highway research program. That program should be expanded. We need to speed up the development of new technologies which will offer the hope of reducing costs.

Based on all of the information now available, ARTBA believes that Federal-aid authorizations at a level of at least $13 billion per year are reasonable and appropriate for next year.

We agree with FHWA that a restructuring of the interstate program is necessary. "Completion" must be defined in a more realistic way in order that all unopened-to-traffic sections of interstate highway can be completed. It must be possible for all States to meet the 1986 deadline for the letting of final construction contracts without further extending this date. Authorizations must be set high enough in order to fund these final contracts.

Items excluded from the redefined "completion" program should be made eligible for the interstate 4R program.

The requirement for these two interstate programs approximates $6.5 billion per year.

Based on the preliminary needs report, primary system authorizations in the magnitude of $2.5 billion annually are fully justified. The bridge replacement and rehabilitation program is a "catch-up" program with an obvious need for at least $2 billion per year.

It is suggested that $2 billion be made available for secondary, urban and safety construction programs.

Despite the magnitude of the suggested authorizations, the resulting program is a modest one in relation to the overall needs. Regular increases should be provided as additional funding becomes available.

Consideration of the revenue problem should not overlook the fact that the Highway Trust Fund has a current "check book" cash balance of over $12.2 billion. A substantial Highway Trust Fund balance is necessary only as long as the periodic extensions of the trust fund's life are for relatively short periods of time. The funding arrangements for the "pay-as-you-drive" Federal-aid highway system are by far the most conservative in the entire Federal establishment. There is absolutely no necessity to maintain a multibillion dollar cash balance in the Highway Trust Fund.

The motor fuel tax is just one of several highway user taxes supporting the Highway Trust Fund. However, it is unquestionably the mainstay of the highway user tax package. In order to retain the equitable distribution of the tax load, all motor vehicles should be subject to the motor fuel user tax. The current gasohol exemption should be repealed. Early consideration should be given to the levying of an equivalent tax on operators of electrically powered vehicles. If it is deemed desirable to offer a tax break to users of alternative fuel systems, both the incentive and the subsidy should come from sources other than the highway trust fund.

ARTBA supports the principle of a variable motor fuel tax. At the same time, we recognize that the cents per gallon tax has the advantage of producing relatively predictable revenues.

We recommend therefore that the Federal motor fuel tax be established as a two-tier tax:

(1) The existing tax of 4 cents per gallon should be retained.

(2) An additional tax should be levied at 4 percent of the average wholesale price of motor fuel.

With the wholesale price of gasoline currently about $1 per gallon, the immediate effect of the two-tier tax would be to increase the motor fuel tax to 8 cents per gallon.

One of the objections sometimes expressed to "inflation proof" taxes is that the tax itself becomes a part of the inflation spiral. If the price of a commodity doubles, an ad valorem tax on that commodity also doubles. The two-tier motor fuel tax would trail significantly behind the commodity price increase, as we have indicated.

The Department of Transportation estimates that, at the current tax rate, gasoline tax revenues will decline from $4.3 billion in 1979 to $3.9 billion in 1984. The immediate impact of the proposed two-tier tax, of course, would be to approximately double the income from this source. However, this would not, in itself, produce anything close to a doubling of total highway trust fund income.

There is a reasonable expectation that the Federal Highway Administration will be able to submit a useful preliminary report on the highway cost allocation study early next year. Pending the receipt of this information, we defer any recommendations relative to adjustments in Highway Trust Fund taxes other than the motor fuel tax.

Within the next few weeks, we will be in a position to present a full report of the congressional responses to our "Are You For Better Transportation?" questionnaire. We are finding that there is strong support in Congress for the principle that highway users should pay for the highways through special taxes levied upon them. We also find strong support for the trust fund method of administering these tax revenues.

The Federal-aid program which ARTBA recommends is one which calls for a significant increase in effort at both the State and local levels. We believe that this is both necessary and appropriate. We perceive a Federal responsibility to take a leadership role in the completion and preservation of the interstate system and to work cooperatively with the States in the development and preservation of other highway systems.

Mr. Chairman, this concludes the statement of the American Road and Transportation Builders Association. We appreciate this opportunity to present this testimony and look forward to working with this subcommittee in the development of responsible transportation legislation in the 1980's. We will be glad to respond to any questions you or the other members of the Subcommittee on Transportation may have at this time.

Senator **Randolph**. Mr. Eline, in a few minutes I am going to ask some very pointed questions. I didn't ask them of the counties and mayors, but I will be asking those of you who are now testifying.

I want to defer to our colleague, who is an active, helpful member of our committee, Senator Pressler of South Dakota.

Senator Pressler, I know that you have a contituent who has testified, and I am sure Mr. Emme would want to answer your questions.

Senator **Pressler**. Thank you, Mr. Chairman, for that consideration I do have some other South Dakotans waiting in my office who have flown in with a franchise problem today, which is totally different from this committee, I have asked that I may ask a few questions out of order of Mr. Emme, my constituent, who has done such a good job in his testimony this morning.

One thing you said, Owen, that struck me is that in South Dakota, and probably nationwide because we are probably typical, one in every 3 miles of highway needs to be either resurfaced or rebuilt. Is this the case for all systems—interstate, primary, secondary and urban—or just one or two of the systems? I thought that was a fascinating remark. Maybe if you don't have that information you can send it up later.

Mr. **Emme**. Senator, it is for all systems. Our interstate highway program, as you know, is now some 20 years old. It started in 1956. Our interstate program is in need of repair at this time, overlays and bridge overlays. Our secondary system, as you know, in South Dakota is in very bad shape. On the Federal-aid primary system in South Dakota, we have been on a stopgap measure for the last 5 to 7 years. We have not been building or rebuilding our old roads, and we are just strictly putting on a patch to try and get by until we have additional revenues so we can rebuild these roads in better shape to last. Many of our roads are 30 to 40 years old, and we are still just putting another overlay on top. All the roads in the State are in dire need of rebuilding.

Senator **Pressler**. You mentioned many of our bridges—I am well aware of this coming from a farm myself. Even with a farm truck you have to be very cautious about the route you take, at least in some parts of the State, to be sure you don't go over a bridge that is unsafe. Is that what you are referring to?

Mr. **Emme**. Very definitely. We also find in moving heavy equipment in various parts of the State we have to call a day in advance to get routing so we do not go on so many of the bridges that are below standards and will not take the heavier weights.

Senator **Pressler**. Now, Owen, you support retaining the current 4-cent-per-gallon tax and adding on that an additional index type of tax. Do you believe this kind of increase in Federal gas tax would have any impact on the State's ability to raise additional revenues to fund highway projects?

Mr. **Emme**. Senator, with the tremendous increase we have seen over the last 2 to 3 years in the cost of gasoline, not any of it except a small amount that we passed in South Dakota this past year of 3 cents, increasing the tax on gasoline, I really don't think that it will hamper the States in their individual efforts. A 4-cent gasoline tax on a Federal level increase or an ad valorem tax on the Federal level will for 1 year, or during its implementation, probably have an impact, more of a knee jerk reaction, I might say, to the traveling public rather than a serious impact in regard to the total cost of fuel consumed in our vehicles.

Senator **Pressler.** Thank you very much. I want to thank all the witnesses who have done such a good job, and if they wish to make comments later on my questions and for the record, I would be happy to have them.

Mr. Chairman, I want to thank you for letting me ask a couple of questions out of order. This treadmill we are on keeps us moving from one period to another, but I thank you for your consideration.

Senator **Randolph.** Thank you, Senator. We are glad to have you present and have the colloquy with your constituent as well as the representative for the very important organization of contracts, the AGC.

Mr. Landen, I am not trying to hurry you, but let's stay within the 10 minutes, and your statement in full will be placed in the record if you run over.

STATEMENT OF J. C. LANDEN

Mr. **Landen.** Yes, Mr. Chairman.

My name is Jack Landen. I am vice president with 3M Co., and I am appearing today in behalf of the Highway Users Federation. My company is a member of the federation, and I am vice chairman of the organization.

The federation is a broad-based, national coalition of businesses, industries, industry associations and individuals who share a common concern about good, safe highway use. Our members are the producers and consumers of highway transportation services and products.

Mr. Chairman, we appreciate this opportunity to participate in the development of new Federal highway legislation not only in today's hearing, but continuing in the next several months.

As the Nation moves from a period of expansion and development of its highway system to one of rehabilitation, there continues to be a need for a strong Federal presence. I emphasize the word "strong." Some current highway problems stem from the fact that highway mobility, which I don't hesitate to identify as our country's economic lifeline, has slipped among national priorities over the years. We firmly believe part of the Federal responsibility is to keep the highway transportation priorities high and visible.

The job facing us is one of overcoming accelerating deterioration of our aging highway system. Too many of our roads are in bad shape. For example, between 60 and 80 percent of the pavement surface on the primary system will have to be replaced in the 1980's; 7 percent is rated in "poor" condition right now. We are now paying the price for that diminished priority.

The highway user community has considerable faith in the Federal-State partnership that helped build the Nation's key road systems in the first place. However, the basic Federal approach of concentrating on a limited number of systems of national importance, which we support, has been weakened in recent years by a proliferation of off-system expenditures. These jeopardize orderly, efficient administration and the basic systems concept.

So, too, does a growing tendency to preempt—through Federal administrative actions—legislated provisions assuring that urban planning and transportation decisions will be local decisions. Long-standing legislation on urban transportation planning is sound. It should not be subject to informal interpretation and changes by the administration unsupported at the local level.

Money, however, is clearly the key to timely rehabilitation of the Federal-aid highway system. Despite the proposition 13 tax revolt of a few years ago, evidence at the State level is that Governors and legislatures with the support of highway users and others are willing to step up to solve their own highway needs. The appended table shows the recent pace of State gas tax increases.

Regarding the Federal program, we have testified previously that the highway trust fund with its variety of user charges is a solid foundation on which to base Federal road funding. The highway trust fund should be extended indefinitely to cover the major costs of the Federal-aid highway and safety programs.

We believe every effort should be made to stop artifically curbing highway expenditures when an adequate balance is on hand in the trust fund. Further, we do not believe that trust fund reserve should be used to help make our national budget balance look better than it really is at the expense of safe, efficient highways. These factors have resulted in a trust fund "cash balance" that makes it very difficult for highway users to accept the need for an increased Federal user tax.

The so-called cash balance should be cut to a reasonable, fiscally sound level immediately—possibly less than $5 billion—before adding new taxes. Our concern is that as long as there is a public perception of highway money not being used, the public is not likely to support any increases in taxes.

It is equally difficult to make a case for increased highway user taxes while provisions remain on the books for diversion of road funds to other uses. The language in title 23 clearly indicates that Congress didn't intend that urban road system funds become a permanent source of support for mass transit. Since 1978, "assured funding" has been provided for transit from sources other than the highway trust fund. We have supported and continue to support independent financing for public transit, and now suggest that forthcoming legislation eliminate current provisions allowing scarce urban funds to be used for other than road purposes.

It is clear, however, that neither use of the trust fund balance nor the ending of diversion of highway revenues will in themselves meet the future road needs or even overcome current problems. Congress must develop a funding program that reflects growth and changes in the economy and in our population.

We recommend that any tax proposal considered by Congress be tested against these criteria:

(1) Its ability to meet highway needs as determined by competent studies of future requirements.

(2) Its fairness and equity among all classes of user taxpayers.

(3) The ease and economy of administering the tax.

(4) The predictability of income and the opportunity for periodic legislative review.

It also is understood that in any user tax increase plan, the revenues would continue to be dedicated to the highway uses.

Whatever funding arrangements are eventually worked out, it will continue to be necessary to concentrate Federal highway aid not only on a limited number of systems, but on top priority work within those systems. For example, completion of the unopened interstate sections is a top priority. The current completion schedule should be strictly adhered to, with exceptions only if construction cannot begin because of a lack of Federal funds. And we hope there will be no such exceptions.

We support separation of upgrading costs on the interstate from gap-closing costs.

At the same time, we hope Congress will establish a permanent 4–R program as bill 2913 provides, to take care of the continuing rehabilitation and upgrading needs of the interstate.

Clearly, provision of funds to complete the system and upgrade it are both necessary and this will, undoubtedly, require increases in interstate authorization for 1982 and beyond.

On another matter of importance, we hope Congress will reemphasize what we believe was its original intent: that highway safety be treated as an integral and important part of every federally aided road project—from the earliest stages of highway planning through actual construction.

Finally, regarding the urban program, we are concerned that there is a growing belief in some quarter that most urban street and highway problems can be dealt with by simple traffic management programs. These are useful and important, but they can't do the total job in metropolitan areas that are growing and changing. Substantial urban highway and street construction will be required to build in the capacity and safety required by travel demands. We continue to be an urbanizing and suburbanizing country. Transportation systems management projects alone are simply inadequate to meet all future needs.

Mr. Chairman, the Highway Users Federation appreciates this opportunity to participate in the committee's work. Your task ahead will be difficult and challenging. We earnestly hope in the end you will not draft legislation that settles for the status quo. The present safety and efficiency of our important roads simply is not good enough. America cannot improve its industrial productivity, cannot achieve economic progress, cannot serve its citizens with a second-class highway system. We trust Congress will keep in mind the forward-looking highway program goals that have stimulated progress in the past—goals the public and highway users can understand and full support.

Thank you for the privilege.

Senator **Randolph.** Thank you very much, Mr. Landen.

I am sure that you, the witnesses today and organizations you represent, are very conscious that we share with you the feeling of the crucial, complex decisions that we must make in this committee and in the Congress and at the State and local levels in connection with this subject matter.

It was Abraham Lincoln, if we look back to an earlier period in our country, who said, Mr. Landen, what you are saying, in essence, that, "The dogmas of the quiet past are inadequate for the stormy present." He said also, "We must think anew. We must act anew. We must disenthrall ourselves." He had plenty of problems, as other Presidents have problems. But I am thinking after all of the problems that anyone in office, elected or appointed have. These are the problems of people, of a nation that, as you and others have said, is constantly growing in population. Our economy is wheels and wings. We know that very certainly and have recognized it.

Now, why are we holding these hearings in the year 1980? It is not for window dressing. We can do nothing this year. We understand that. But we needed to begin now to be ready for the introduction of legislation which hopefully can be introduced very early next year. It may be an administration bill of whatever administration is in power, or it may be a bill that comes from this committee or the House committee, possibly from both of us, to supplement a so-called administration bill. That is why these hearings are being held so that we can have some lead time in order that we can move into the actual consideration of legislation next year based upon what you gentlemen, speaking for your organizations, are testifying to here today. Do you agree that that is worthwhile?

Mr. Landen. Yes, sir.

Senator Randolph. I think it is absolutely necessary, and that is why we have attempted to move in this way.

I believe I have heard at least two of the witnesses say that it is important to continue the highway trust fund. I fully agree with that. And for the record only I want to indicate that the Senate of the United States believes in the continuance of the highway trust fund. I will give only the two most recent votes in the Senate on that subject. In 1977, there was an effort to abolish the highway trust fund, and a rollcall took place after arguments being presented in the Senate of the United States. Eighty-three Senators voted for continuance of the highway trust fund; only eight Senators voted to abolish it. That was in 1977.

In 1978, we had another situation where there was an effort made to abolish the highway trust fund. The vote on that occasion was 75 for the continuance and 10 against it. So in the year 1977 we had 91 Senators participating, and we had 85 Senators participating in 1978. That indicates that the Senate—and I am sure it is reflected also in House votes—is in favor of the continuance of the highway trust fund.

But what is the trust fund to be? That is the problem that we have to think of in connection with all of these matters. Within the last 3 years, those State gasoline taxes, as you all know, have been raised—West Virginia included, in 1978, when we raised our State tax from 8.5 to 10.5.

Senator Randolph. More States have raised their State gasoline taxes this year than in 1979, when it was rather close, but it exceeds this year the raises over last year. And then there were four States that had increases in 1978.

So out there, not here on Capitol Hill, you are faced with very real problems. And we all are. We have perhaps one of the most vexing problems that I think has ever affected the country as a whole. It may not be the reason for headlines or special mention in the media. I hope they will help us with articles that may indicate to the people the problems that we face. We have the most important highway system of any country in the world. We understand that. But that is not enough to say. We have been intelligent in trying to handle our problems, but now as I think of the panel summary here today we feel that you are talking about increasing the obligational ceiling; is that correct? I think that is correct. It follows by all of the witness.

Dick, we have been about 8.4 billion; is that correct?

Mr. **Harris.**[1] Yes.

Senator **Randolph.** I want to be certain. And it has been suggested here today, if I recall the correct figure, that in 5 years you believe that that will have to be raised to $18 billion. So here is something that faces us. I don't know what that would be, adding 4 percent would it? More than 4 percent, 47 percent. So we are going to thing in terms of all these.

You are talking about drawing down the highway trust fund balance so as to make it something that is permanent from the standpoint of the fund. These are all problems which I am only sketching today. But we, with you, are very concerned. These problems must be more than problems to solve, if not wholly—and that is impossible—at least partially. These problems present challenges, and I hope in the legislative and administrative positions held by those that are elected, those that are appointed, will come to grips with what has got to be done. I know we can't do it through timid steps—I know that—or working on the fringes; we have got to come once again, as we have done on subject matters through the country, through crises, whatever crises might be, we have done it with what I call an all-out throttle attack. I mean an attack. When I say that, an attack legislatively and in other ways.

Now, Mr. Emme, with construction costs, are they spiraling?

Mr. **Emme.** Yes, sir, Senator Randolph.

Senator **Randolph.** That is not an overstatement.

Mr. **Emme.** No, it is not.

Senator **Randolph.** I suppose the increases—I am not sure what period of years, 10, 12, whatever, maybe 13 years it has increased perhaps 300 percent; is that right?

Mr. **Emme.** That is correct.

Senator **Randolph.** That, of course, applies to other areas of construction also. Does the AGC, your important organization in the roadbuilding industry, have recommendations as to how we can construct or rehabilitate more highways? There is apparently, we might be realistic, less dollars that we have had in the past. These highway dollars do not seem to be easy to come by. I am not talking about Democratic or Republic administrations. These matters must never be allowed to be mired in political approaches. Never. We have never done it in this committee. I hope we never do it on the Hill.

Of course, we have Federal regulatory problems, and funding problems, but I hope you are going to give to us the answer to that question. Would that be possible?

Mr. **Emme.** Yes, sir. We can get the answer to that. One of the simple ones is to get rid of many of those regulations that are being imposed on the construction industry through the Federal highway department and causing our costs to go up so extensively, so quickly, because of social program being implemented in the highway program.

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[1] Richard M. Harris, counsel, Committee on Environment and Public Works.

Senator **Randolph.** Well, I know I am concerned with that subject matter and have written an article that will appear soon on the problem of unrealistic and overregulation in connection with this and other programs.

I would like to ask you, Mr. Eline, what does your important organization, one with which I at one time was associated when I was not in Congress—very frankly, I know both of these organizations are worthwhile—what are the most crucial problems that face the highway program over the next 10 years? Now, of course, you have said something about that subject, but I would like for you to zero into it in even greater depth. Mr. Eline, you have proposed substantial funding increases for the basic highway program; is that correct?

Mr. **Eline.** That is correct, Senator.

Senator **Randolph.** Well, now, what is the source of the funding to achieve this level?

Mr. **Eline.** Senator, we felt it would be best to stay with the 4-cent tax on the wholesale price of gasoline and motor fuels and then add a 4-percent tax at this point in time. And the reason we recommended this and gave it deep thought was that then taking gasoline at the wholesale price of a dollar, that would give you 8 cents basically. But what it would do is allow the Congress and the Senate to watch the future income in the highway trust program and therefore increase the tax in relationship to the need.

Another very important part of our recommendation, and probably equally important, is to make the highway trust program a permanent program so that the funds collected can be used. And it would provide the country the opportunity to use the $12.2 billion which is now required to be held in a checkbook balance because the program is not permanent.

A second point is that we need to get stability in the program, Senator. When you have a vacillating program, it affects the material producers, it affects the contractors, it affects the equipment producers, and each of those are affected in higher base costs, which ultimately just cost the taxpayers.

Senator **Randolph.** You want the uncertainties kept to a minimum.

Mr. **Eline.** Kept to a minimum so we know where we are.

A third point, and I think this is essential, is we have got to keep the competitive bidding system. In other words, where people bid the man who is able to produce the quality at the lowest bid is the man we ought to buy from. And all of these social programs being built into this will do nothing but increase the cost in the 1980's. I think if we could do those three things it will make a great contribution for transportation in the United States.

Senator **Randolph.** Mr. Landen, by the way, do you have a company in West Virginia?

Mr. **Landen.** Yes, sir, Middleway.

Senator **Randolph.** Up in Jefferson County.

Mr. **Landen.** Right. Lovely place.

Senator **Randolph.** How many do you employ there?

Mr. **Landen.** I am not positive, 200, 250.

Senator RANDOLPH. You are a good part of the community, nothing provincial about that.

Mr. LANDEN. Just a fact of life.

Senator RANDOLPH. We have a copy of a presentation, I understand, that was given by Paul Matthews, a regional director of the Highway Users Federation, I believe the latter part of August of this year. Now at that time there were a number of graphs that depicted the changing financial picture of the Federal-aid highway program. The information we feel could be useful to us at this time, depending on the source and analysis, if you feel you can help us with this sort of information, if you would discuss the information sources and the methodology that was used to have the conclusions that you have placed here in this document, "Potholes, Pennies and Politics"—some alliteration. I guess we should put politics at the top right now if we redo the subject. Now, are there more details that you can give to us which would be helpful to us in the changing financial characteristics, very frankly, of our highway programs? And if you can provide us with additional information so as to help us, that would be very worthwhile.

Mr. KOLTNOW. If I may, Mr. Chairman, that presentation was given to the National Conference of State Legislatures and to the National Governors' Association within the last month. All of the sources are public sources of information about funds made available to highways over a long period of time, the deteriorating condition of our roads, and some of the root causes of that. We will be more than happy to provide the source document for that and other related material that will be helpful to your committee.

Senator RANDOLPH. I thank you very, very much.

As you know, we came together in the hopes, and now I am sure the beliefs, that what you said will help us. We are going to continue to keep in touch with you—is that agreeable?—and we do that back and forth as we get ready for next year. And next year will, of course, be a different year than the one we are in now. Some of us are not candidates for reelection and so we will presumably be here. But this committee will function and our subcommittee will function, and I am sure what I am saying to the Senate is equally descriptive of what I say will be the effort of the House. But I become very vigorous when I say this is a problem that cannot wait for settlement in a substantial degree, because dependent on what we do intelligently and fairly and with a look toward our obligation to the tomorrows, it won't be very reflective of the cooperative, cohesive effort that I think all of us can invest in this effort.

Is there any comment as we close the hearing today from anyone?

[No response.]

Senator RANDOLPH. Well, thank you very much.

[Whereupon, at 12:15 p.m., the subcommittee recessed, to reconvene subject to call of the Chair.]

[Statements and other material submitted for the record follow:]

Interstate Restoration/Modernization Program

prepared by

Pennsylvania Department of Transportation

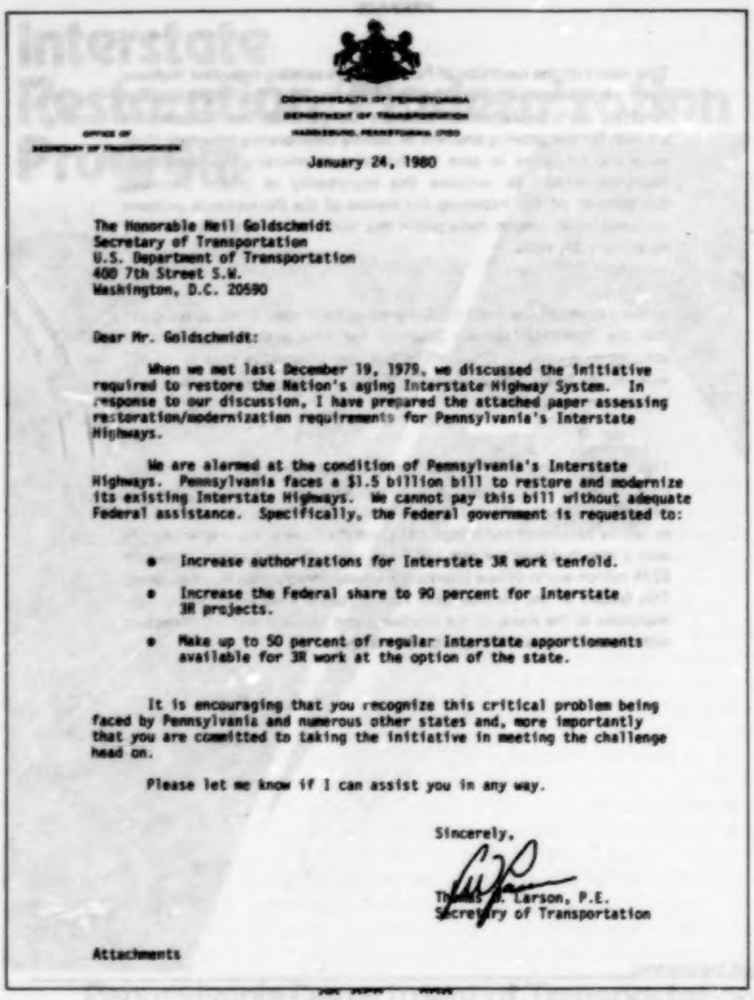
Dick Thornburgh, Governor
Tom Larson, Secretary of Transportation
May, 1980

PREFACE

This report on the condition of Pennsylvania's existing Interstate Highway System was prepared in response to an inquiry from U.S. Transportation Secretary Neil Goldschmidt. Secretary Goldschmidt had indicated his concern for the growing problem of rapidly deteriorating Interstate Highways and his desire to take the initiative in reversing this potentially disastrous trend. We welcome this opportunity to inform Secretary Goldschmidt of the increasing dimensions of the Pennsylvania problem and are pleased now to make public this report delivered to the Secretary on January 24, 1980.

In this report, we challenge the Congress of the United States to recognize that the Interstate Highway System - for most practical purposes - is completed. A total of $78.2 billion has been invested in close to 40,000 miles of the finest highways ever built. The time has now come to protect this massive investment.

This report documents $1.5 billion worth of restoration and modernization work required to make the 1,500 miles of existing Interstate Highways in Pennsylvania again safe and sound. Half a billion dollars is required just to restore pavements and bridge decks, yet the Federal law is structured in such a way that over the past two fiscal years, Pennsylvania has financed $374 million worth of new Interstate Highway construction in other states. This feature of the Federal/State Transportation Program is clearly non-responsive to the needs of the Northeast and Midwest and is inconsistent with the auto-highway transportation realities of the 1980's.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
HARRISBURG, PENNSYLVANIA 17120

OFFICE OF
SECRETARY OF TRANSPORTATION

January 24, 1980

The Honorable Neil Goldschmidt
Secretary of Transportation
U.S. Department of Transportation
400 7th Street S.W.
Washington, D.C. 20590

Dear Mr. Goldschmidt:

When we met last December 19, 1979, we discussed the initiative required to restore the Nation's aging Interstate Highway System. In response to our discussion, I have prepared the attached paper assessing restoration/modernization requirements for Pennsylvania's Interstate Highways.

We are alarmed at the condition of Pennsylvania's Interstate Highways. Pennsylvania faces a $1.5 billion bill to restore and modernize its existing Interstate Highways. We cannot pay this bill without adequate Federal assistance. Specifically, the Federal government is requested to:

- Increase authorizations for Interstate 3R work tenfold.
- Increase the Federal share to 90 percent for Interstate 3R projects.
- Make up to 50 percent of regular Interstate apportionments available for 3R work at the option of the state.

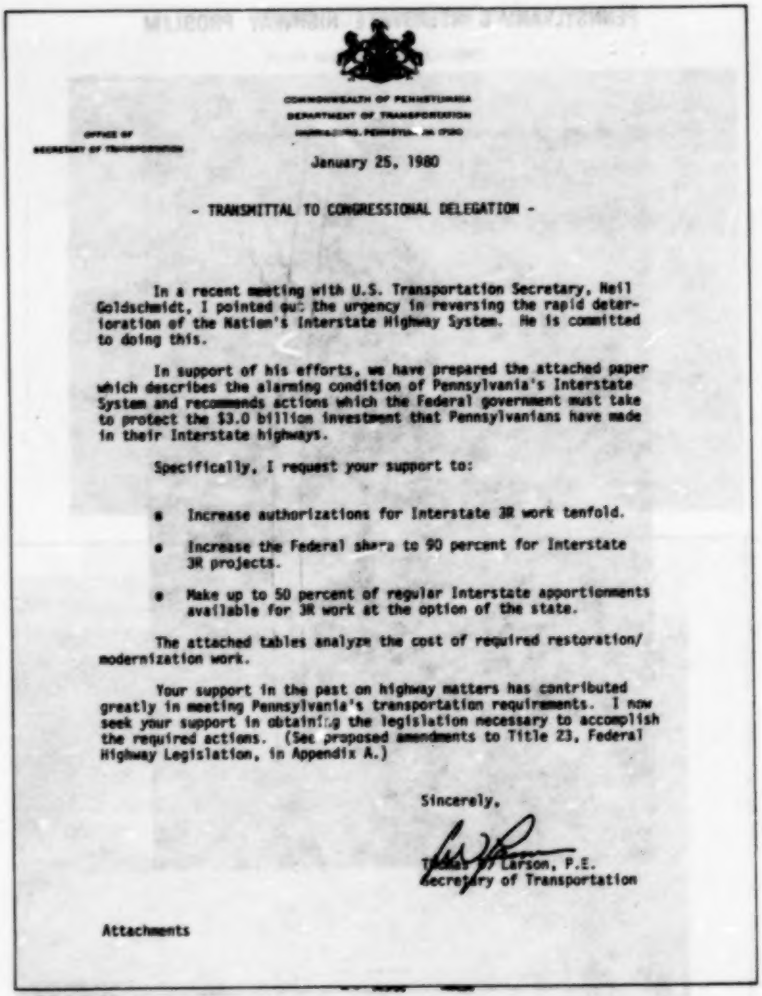
It is encouraging that you recognize this critical problem being faced by Pennsylvania and numerous other states and, more importantly that you are committed to taking the initiative in meeting the challenge head on.

Please let me know if I can assist you in any way.

Sincerely,

Thomas D. Larson, P.E.
Secretary of Transportation

Attachments



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
HARRISBURG, PENNSYLVANIA 17120

OFFICE OF
SECRETARY OF TRANSPORTATION

January 25, 1980

- TRANSMITTAL TO CONGRESSIONAL DELEGATION -

In a recent meeting with U.S. Transportation Secretary, Neil Goldschmidt, I pointed out the urgency in reversing the rapid deterioration of the Nation's Interstate Highway System. He is committed to doing this.

In support of his efforts, we have prepared the attached paper which describes the alarming condition of Pennsylvania's Interstate System and recommends actions which the Federal government must take to protect the $3.0 billion investment that Pennsylvanians have made in their Interstate highways.

Specifically, I request your support to:

- Increase authorizations for Interstate 3R work tenfold.
- Increase the Federal share to 90 percent for Interstate 3R projects.
- Make up to 50 percent of regular Interstate apportionments available for 3R work at the option of the state.

The attached tables analyze the cost of required restoration/modernization work.

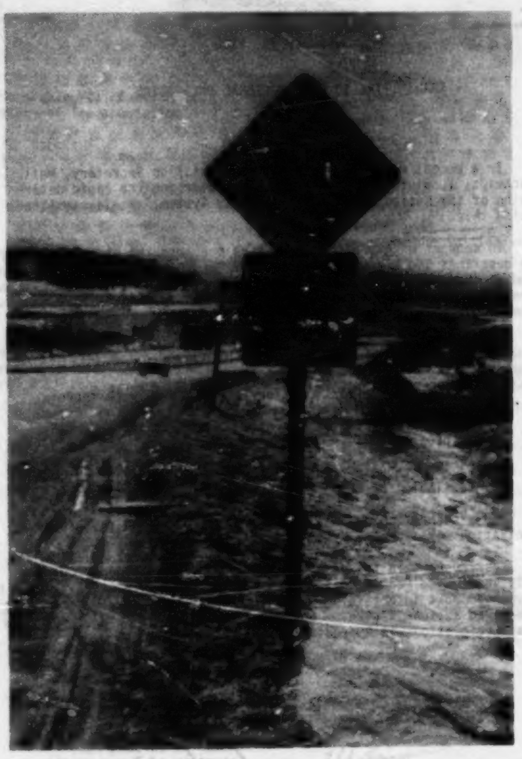
Your support in the past on highway matters has contributed greatly in meeting Pennsylvania's transportation requirements. I now seek your support in obtaining the legislation necessary to accomplish the required actions. (See proposed amendments to Title 23, Federal Highway Legislation, in Appendix A.)

Sincerely,

Thomas D. Larson, P.E.
Secretary of Transportation

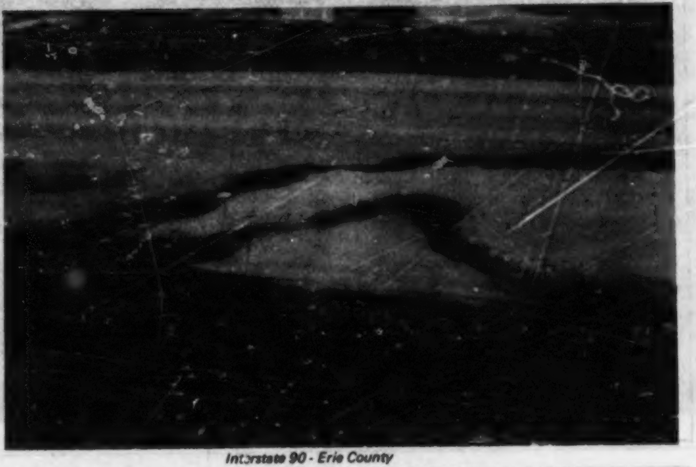
Attachments

PENNSYLVANIA'S INTERSTATE HIGHWAY PROBLEM



WORN OUT PAVEMENTS

SLAB AND JOINT FAILURE

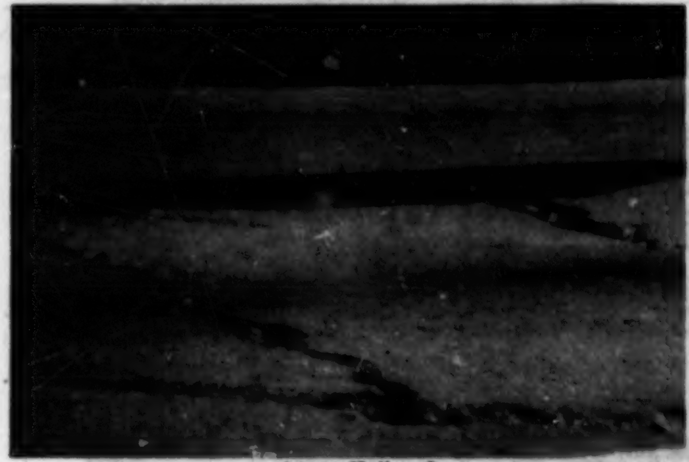


Interstate 90 - Erie County

Interstate 90 - Erie County

SLAB FAILURE AND SETTLEMENT

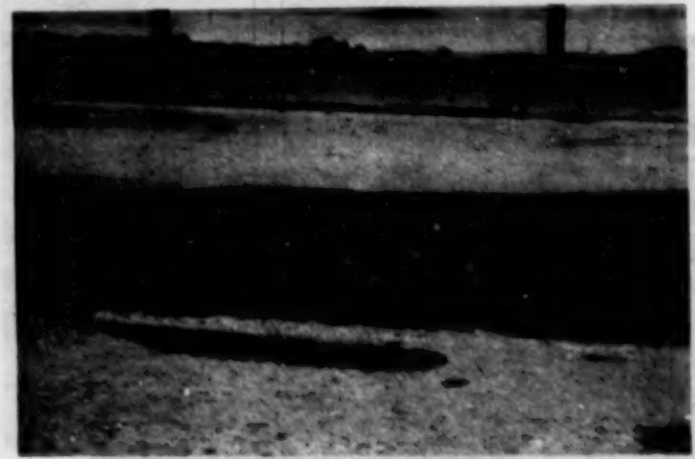
Interstate 80 - Mercer County



Interstate 80 - Mercer County

SLAB AND JOINT FAILURE

Interstate 80 - Jefferson County



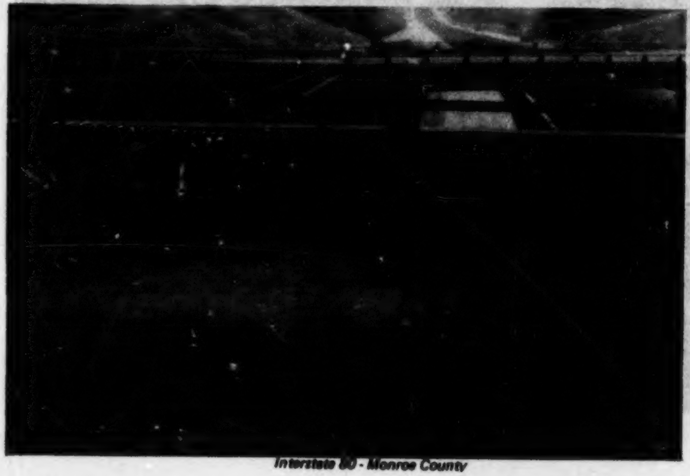
Interstate 70 - Washington County

DETERIORATED BRIDGE DECKS

DECK DETERIORATED TO REINFORCING STEEL

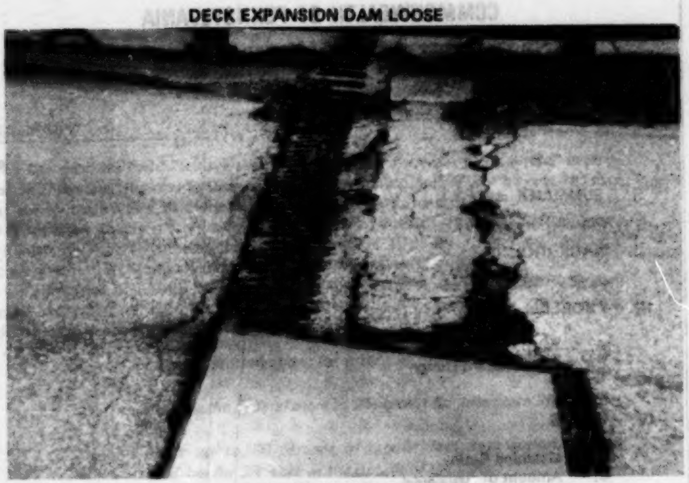
Interstate 95 - Bucks County

SPALLING OF CONCRETE DECK



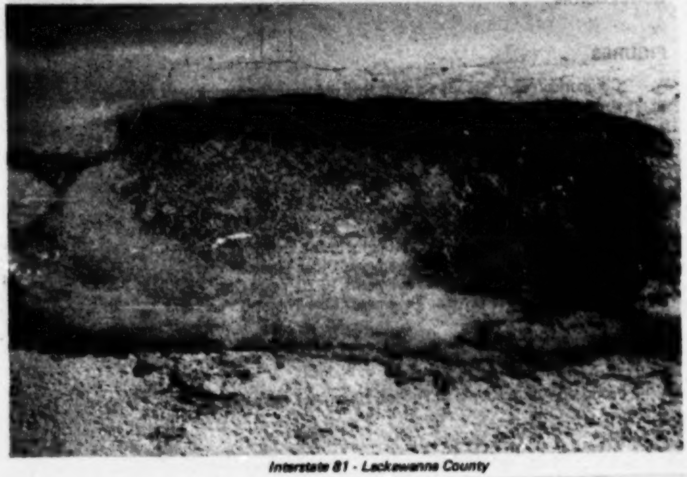
Interstate 80 - Monroe County

DECK EXPANSION DAM LOOSE



Interstate 83 - York County

SEVERE DECK DETERIORATION



Interstate 81 - Lackawanna County

COMMONWEALTH OF PENNSYLVANIA

INTERSTATE RESTORATION/MODERNIZATION PROGRAM

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C. Required Improvements to Pavements 10-20 Years Old
D. Required Improvements to Pavements Less Than 10 Years Old

VIII. APPENDICES

A. Proposed Amendments to Federal Highway Legislation

I. SUMMARY

The Commonwealth of Pennsylvania is alarmed with the extensive and rapid deterioration of its Interstate Highway System. Well over one billion dollars will be required over the next six to seven years to modernize older segments to present Interstate standards; another half billion dollars is required just to keep Pennsylvania's Interstate System operational. Remaining Federal authorizations under the 1978 Highway Act for the Interstate resurfacing, restoration, and rehabilitation (3R) program will only provide $20 million toward the 3R portion of the bill – $470 million. If Pennsylvania's Interstate Highway System (4th largest in the Nation) is to continue as the gateway to the northeastern United States, the Federal Government is urged to:

- ***Increase authorizations for Interstate 3R work tenfold.***
- ***Increase the Federal share to 90 percent for Interstate 3R projects.***
- ***Make up to 50 percent of regular Interstate apportionments available for 3R work at the option of the state.***

Proposed Federal legislation to implement these recommendations is contained in Appendix A.

II. BACKGROUND

In Pennsylvania, and across the Nation, accelerated deterioration of the Interstate Highway System is in widespread evidence. The rate of deterioration is, in many cases, alarming. And the basic causes for the state of disrepair are out of control.* In Pennsylvania, the magnitude of the problem is fast reaching crisis proportions and threatens the very integrity and viability of the Commonwealth's Interstate Highway System. At stake is the protection of an investment of well over $3.0 billion, and the incalculable benefits gained through the mobility afforded by the Interstate System of National Defense Highways – a mobility we dare not lose.

While attention at the Federal level continues to focus on completion of the Interstate System (See Figure A), the Commonwealth has given an equal or even higher priority to restoration and modernization of its 1,500 miles of completed Interstate highways.

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*One cause which can be controlled is over-weight trucks. To control over-weight trucks, Pennsylvania has initiated an aggressive, comprehensive program including 6 permanent and 30 portable weight stations.

III. PROBLEM

The cost of preserving and upgrading the Interstate Highway System in Pennsylvania is summarized in the attached tables. Required modernization and restoration of the Interstate Highway System under existing Federal programs and matching ratios will require in excess of $225 million in state matching funds - a requirement beyond the Commonwealth's financial capability. This is especially crucial in light of restoration and modernization requirements on other highway systems.

Currently, the state's maintenance crews spend an inordinate amount of time patching potholes and repairing bridge decks across Pennsylvania's Interstate system. This effort, supported 100 percent by state funds, causes the deferral of maintenance on critical primary and secondary routes. Local residents are particularly concerned about the diversion of maintenance efforts to the Interstate System.

If this problem is to be solved, the Federal government must recognize the severity of the problem relative to other highway system requirements. It must further recognize the financial burden being placed on the states, reorder its priorities, and develop incentives to encourage the states to preserve and enhance one of the largest Federal investments in the history of this Nation.

Worn Out Pavements

Many segments of the Interstate Highway System have been in existence for decades. While those segments exceeding twenty years of age (estimated design life of these facilities) are expected to require major restoration work, actual experience finds even those segments completed less than 10 years ago are experiencing traffic volumes far above those originally projected. Most serious is the heavy truck traffic which has taken its toll on pavement life. The total cost to restore worn out pavements is estimated at $470 million.

Sub-Standard Design

Even more significant is the high cost to upgrade the Interstate Highway System. While built in compliance with nationally accepted standards and specifications at the time, rapid advancement in the state-of-the-art has left many segments sub-standard with respect to present design criteria.

As an example, the Commonwealth has already committed $77 million to correct a sub-standard design condition that exists on a 20 year old, three mile segment of Interstate 83. Statewide, $1.1 billion will be required to make necessary safety/modernization improvements to Pennsylvania's existing Interstate System.

IV. ISSUES

Matching Ratios

The Federal government has permitted re-construction of certain already completed sections of Interstate highway. This work has been eligible for 90 percent Federal assistance. Unfortunately, eligible items have been limited to safety related improvements. Examples are: (1) guardrail adjustments; (2) median barrier installation; (3) eliminating obstacles in the clear recovery area; (4) superelevation correction; (5) some acceleration and deceleration lane adjustment; (6) impact attenuator installation; (7) anti-skid pavement overlays; (8) shoulder cross-slope correction; and various other minor items of work. Although this has helped in modernizing some of the system, it has not done the complete job.

There is much work that must be performed in conjunction with safety related work. Even though this work is not eligible for 90 percent safety funding, it does contribute to the safe operation of the system, since it involves the most basic elements of the highway - pavement, shoulder, sub-base, sub-grade, and bridge work. Currently, the improvement of these most basic elements are eligible only for 75 percent Federal participation.

It is impossible to achieve a "safe facility" without an adequate roadway surface. It seems contradictory that work necessary to accomplish this end not be eligible for 90 percent Federal assistance. It becomes increasingly more difficult to comprehend why the preservation of pavements and bridges must take a lesser priority from the Federal perspective. Pennsylvania argues that all of this work is necessary to provide an optimum highway facility. Therefore, all should be eligible for the 90 percent Federal assistance.

Amount of Assistance

While Congress has begun to recognize the problem, we fear that they do not understand the magnitude of work required to upgrade the Interstate System to modern standards. Recognition is evidenced by the $900 million Congress has authorized for Interstate restoration in the 1978 Surface Transportation Assistance Act. The $5.0 - $8.0 million per year in 3R apportionments, which comes into Pennsylvania, is simply not sufficient to do the job when compared to requirements. "Borrowing" from the Federal primary apportionments is not the answer either since this limits much needed improvements to the non-Interstate Primary System.

To get a handle on the magnitude of the problem, Pennsylvania has gathered information concerning costs that would be incurred to restore and modernize Interstate highways to present standards. Required improvements and associated costs were identified by the Pennsylvania Department of Transportation through a 1979 study conducted over a period of one to two months. The work items addressed (Reference Table A) are based on present Federal criteria. Existing inventory data and field investigations supported the study.

The estimated cost to restore and modernize the system is $1.5 billion (See Figure B). Over $1.1 billion is required for safety/modernization work. Existing authorizations for regular Interstate construction would make $995 million in Federal assistance available through 1990 assuming continued 90 percent Federal participation for safety/modernization. Another $470 million is required for restoration (3R). If current levels of Federal authorizations are extended through 1990, only $77 million in Federal assistance would be available to finance 3R projects. To meet all modernization and restoration requirements through 1990 would take $504 million in state funds. The $504 million consists of the following: $111 million to match safety/modernization assistance, $26 million to match anticipated 3R assistance, and $367 million to make up for the shortfall in Interstate 3R apportionments. Increased 3R authorizations to meet 75 percent of total 3R requirements of $470 million would reduce stats funds to a $228 million matching requirement only. Increased Federal participation to 90 percent for 3R work would further reduce state matching funds to $158 million - a more reasonable requirement.

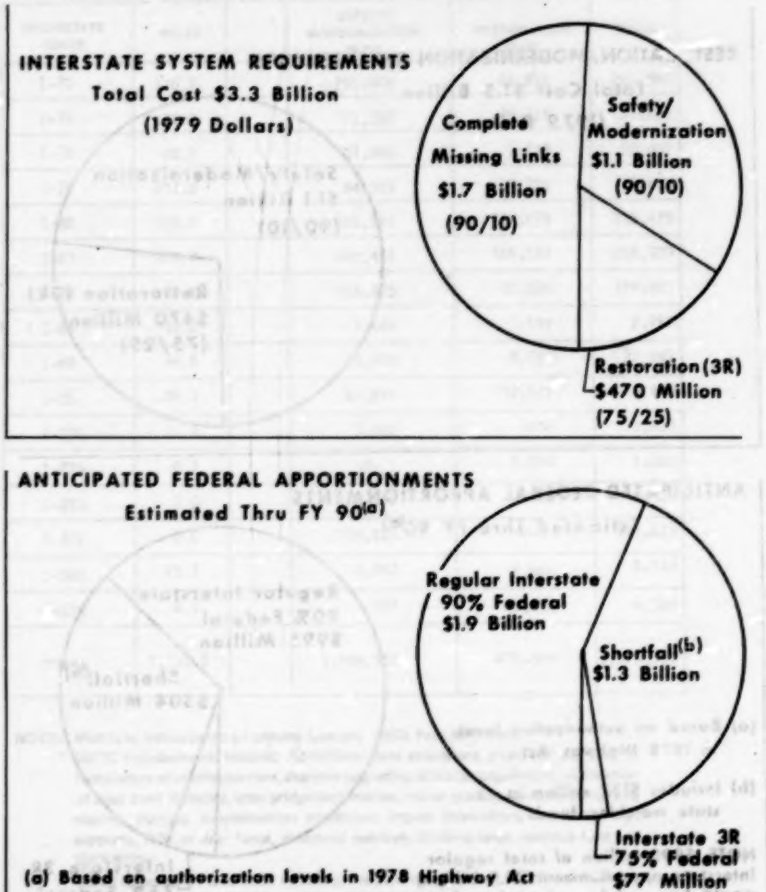
V. CONCLUSION

It is evident that the Commonwealth faces a substantial expenditure of public dollars to finance Interstate restoration requirements in Pennsylvania. If the Commonwealth is forced to undertake identified Interstate restoration/modernization requirements under existing Federal program structures, match ratios and work item eligibility, the required level of work will not get done in time to avert the serious consequences of inaction.

The Commonwealth is determined to revitalize itself and to again take a lead role among states. A basic ingredient to success is a safe and sound Interstate Highway System. If Pennsylvania is to survive as a first class state, the Federal government must recognize the seriousness and urgency of the present situation, take legislative action to increase apportionments for restoration/modernization work, and limit the burden on the Commonwealth by increasing the Federal share to 90 percent.

Figure A

Comparison of Interstate System Requirements To Anticipated Federal Apportionments



(a) Based on authorization levels in 1978 Highway Act

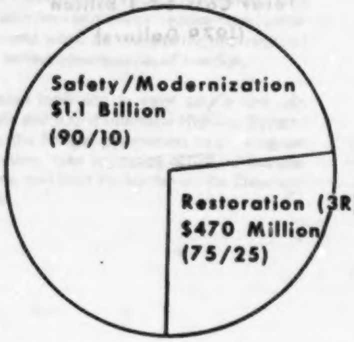
(b) Includes $237 million in state matching funds

Figure B

Comparison of Interstate Restoration/Modernization Requirements To Anticipated Federal Apportionments

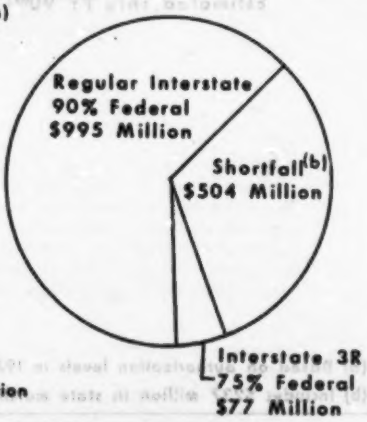
RESTORATION/MODERNIZATION REQUIREMENTS

Total Cost $1.5 Billion
(1979 Dollars)



ANTICIPATED FEDERAL APPORTIONMENTS

Estimated Thru FY 90[a]



(a) Based on authorization levels in 1978 Highway Act

(b) Includes $137 million in state matching funds

NOTE: $995 million of total regular interstate apportionment ($1.9 billion) would be used for safety / modernization work on the existing Interstate System.

-- Total Cost 1979 $000 --

TABLE A

PENNSYLVANIA INTERSTATE HIGHWAY SYSTEM

SUMMARY OF REQUIRED IMPROVEMENTS TO THE EXISTING SYSTEM

INTERSTATE ROUTE	MILES	SAFETY/ MODERNIZATION 90/10	RESTORATION 75/25	TOTAL
I-70	110.9	251,968	44,892	296,860
I-76	21.9	72,350	29,535	101,885
I-78	26.2	51,084	7,218	58,302
I-79	214.8	84,359	90,299	174,658
I-80	318.0	185,797	129,673	315,470
I-81	229.7	100,478	105,852	206,330
I-83	47.0	155,423	22,598	178,021
I-84	49.0	1,646	1,149	2,795
I-90	46.6	18,478	8,763	27,241
I-95	39.7	51,871	22,572	74,443
I-176	11.3	5,862	658	6,520
I-279	0.7	-0-	1,083	1,083
I-283	2.9	6,071	258	6,329
I-376	8.6	115,621	-0-	115,621
I-380	25.7	4,067	2,066	6,133
I-676	0.5	907	3,393	4,300
TOTAL	1,153.5	1,105,982	470,009	1,575,991

NOTE: Matching Ratios based on present (January 1980) Federal criteria.

- 90/10 Improvements include: Accel/Decel lane extensions, guard rail adjustment, Installation of median barriers, shoulder upgrading, drainage adjustment, elimination of clear zone obstacles, latex bridge deck overlay, minor grading work, skid overlays, signing, lighting, superelevation correction, impact attenuators, breakaway sign supports, R/W or deer fence, structural overlays, climbing lanes, roadside rests and glare screen.
- 75/25 Improvements include: Patching, slabjacking, subsealing, additional drainage, spall repair, joint rehabilitation, shoulder reconstruction, overlays, bridge approach slabs, pavement relief joints, guardrail and bridge deck replacement.

-- Total Cost 1979 $000 --

TABLE B

PENNSYLVANIA INTERSTATE HIGHWAY SYSTEM

REQUIRED IMPROVEMENTS TO PAVEMENTS OLDER THAN 20 YEARS

INTERSTATE ROUTE	MILES		SAFETY/ MODERNIZATION 90/10	RESTORATION 75/25	TOTAL
I-70	30.5		79,220	2,396	81,616
I-76	21.9		72,350	29,535	101,885
I-78	18.4		47,469	5,912	53,381
I-79	----		----	----	----
I-80	----		----	----	----
I-81	----		----	----	----
I-83	47.0		155,423	22,598	178,021
I-84	----		----	----	----
I-90	46.6		18,478	8,763	27,241
I-95	----		----	----	----
I-176	----		----	----	----
I-279	----		----	----	----
I-283	----		----	----	----
I-376	8.6		115,621	-0-	115,621
I-380	----		----	----	----
I-676	0.5		907	3,393	4,300
TOTAL	173.5		489,468	72,597	562,065

-- Total Cost 1979 $000 --

TABLE C

PENNSYLVANIA INTERSTATE HIGHWAY SYSTEM

REQUIRED IMPROVEMENTS TO PAVEMENTS 10-20 YEARS OLD

INTERSTATE ROUTE	MILES		SAFETY/ MODERNIZATION 90/10	RESTORATION 75/25	TOTAL
I-70	80.4		172,748	42,496	215,244
I-76	----		----	----	----
I-78	7.8		3,615	1,306	4,921
I-79	146.3		62,789	71,799	134,588
I-80	302.8		184,385	127,640	312,025
I-81	217.5		93,688	103,787	197,475
I-83	----		----	----	----
I-84	----		----	----	----
I-90	----		----	----	----
I-95	29.7		45,879	22,513	68,392
I-176	11.3		5,862	658	6,520
I-279	0.7		-0-	1,083	1,083
I-283	2.9		6,071	258	6,329
I-376	----		----	----	----
I-380	25.7		4,067	2,066	6,133
I-676	----		----	----	----
TOTAL	825.1		579,104	373,606	952,710

-- Total Cost 1979 $000 --

TABLE D

PENNSYLVANIA INTERSTATE HIGHWAY SYSTEM

REQUIRED IMPROVEMENTS TO PAVEMENTS LESS THAN 10 YEARS OLD

INTERSTATE ROUTE	MILES		SAFETY/ MODERNIZATION 90/10	RESTORATION 75/25	TOTAL
I-70	----		----	----	----
I-76	----		----	----	----
I-78	----		----	----	----
I-79	68.5		21,570	18,500	40,070
I-80	15.2		1,412	2,033	3,445
I-81	12.2		6,790	2,065	8,855
I-83	----		----	----	----
I-84	49.0		1,646	1,149	2,795
I-90	----		----	----	----
I-95	10.0		5,992	59	6,051
I-176	----		----	----	----
I-279	----		----	----	----
I-283	----		----	----	----
I-376	----		----	----	----
I-380	----		----	----	----
I-676	----		----	----	----
TOTAL	154.9		37,410	23,806	61,216

APPENDIX A

PROPOSED AMENDMENTS TO FEDERAL HIGHWAY LEGISLATION

I. Increase Federal Share to 90 Percent

Amend 23 U.S.C. Section 119(a) as follows:

Section 119. Interstate System resurfacing.

(a) Beginning with funds apportioned for fiscal year 1980, the Secretary may approve projects for resurfacing, restoring, and rehabilitating those lanes in use for more than five years on the Interstate System (other than those on toll roads not subject to a Secretarial agreement provided for in section 105 of the Federal-Aid Highway Act of 1978). Sums authorized to be appropriated for this section shall be out of the Highway Trust Fund and shall be apportioned in accordance with section 104(b) (5) (B) of this title and the Federal share shall be that set forth in section [120(a)] 120(c) of this title.

Amend 23 U.S.C. Section 120(c) as follows:

(c) Subject to the provisions of sub-section (d) of this section, the Federal share payable on account of any project on the Interstate System provided for by funds made available under the provisions of section 108(b) of the Federal-Aid Highway Act of 1956 or section 105 of the Federal-Aid Highway Act of 1978 shall be increased to 90 per centum of the total cost thereof, plus a percentage of the remaining 10 per centum of such cost in any State containing unappropriated and unreserved public lands and non-taxable Indian lands, individual and tribal, exceeding 5 per centum of the total area of all lands therein, equal to the percentage that the area of such lands in such State is of its total area, except that such Federal share payable on any project in any state shall not exceed 95 per centum of the total cost of such project.

II. Optional Use of Regular Interstate Apportionment for 3R

Amend Section 102(c) of the "Federal-Aid Highway Act of 1976" (P.L. 94-280), as follows:

Section 102(c). [No Part] Up to 50 per centum of the amount received by any State out of the funds authorized by Section 108(b) of the Federal-Aid Highway Act of

1956, as amended, for the Interstate System [shall] may be obligated for any project for resurfacing, restoring, or rehabilitating any portion of the Interstate System.

III. Increase Interstate 3R Apportionments

Amend Section 105 of the "Federal-Aid Highway Act of 1978" (P.L. 95-599), as follows:

> Section 105. Interstate System resurfacing. In addition to any other funds authorized to be appropriated, there is authorized to be appropriated, out of the Highway Trust Fund, not to exceed $175,000,000 per fiscal year for each of the fiscal years ending September 30, 1980 and September 30, 1981, and not to exceed [$275,000,000] $1,750,000,000 per fiscal year for each of the fiscal years ending September 30, 1982 and September 30, 1983. Such sums shall be obligated for projects for resurfacing, restoring, and rehabilitating those lanes on the Interstate System which have been in use for more than five years which are not on toll roads, except that where a State certifys to the Secretary that any part of such sums are excess to the needs of such State for resurfacing, restoring or rehabilitating Interstate System lanes and the Secretary accepts such certification, such State may transfer sums apportioned to it under Section 104(b)(5)(b) to its apportionment under Section 104(b)(1). Such sums may also be obligated for projects for resurfacing, restoring, and rehabilitating lanes in use for more than five years on a toll road which has been designated as a part of the Interstate System if an agreement satisfactory to the Secretary of Transportation has been reached with the State highway department and any public authority with jurisdiction over such toll road prior to the approval of such project that the toll road will become free to the public upon the collection of tolls sufficient to liquidate the cost of the toll road or any bonds outstanding at the time constituting a valid lien against it, and the cost of maintenance and operation and debt service during the period of toll collections. The agreement referred to in the preceding sentence shall contain a provision requiring that if, for any reason, a toll road receiving Federal assistance under this section does not become free to the public upon collection of sufficient tolls, as specified in the preceding sentence, Federal funds used for projects on such toll road pursuant to this section shall be repaid to the Federal Treasury.

STATE HIGHWAY FUNDING METHODS

An Analysis of Alternatives

AUGUST 1980

Prepared by:

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The Road Information Program (TRIP) of Washington, D.C., researches, evaluates and distributes economic and technical data on transportation issues. TRIP is a non-profit agency sponsored by highway contractors, construction equipment manufacturers and suppliers, insurance companies, motor vehicle manufacturers, energy companies, and businesses involved in highway engineering, construction and financing.

Introduction

There is a need for highway financing that will adjust in accordance with inflation, thereby providing adequate funds for present and future road and bridge needs. Historically, highway programs have been financed by cents-per-gallon fuel taxes. They do not automatically increase revenues as prices rise. This paper discusses various means of financing state, county and municipal highway programs other than with cents-per-gallon fuel taxes.

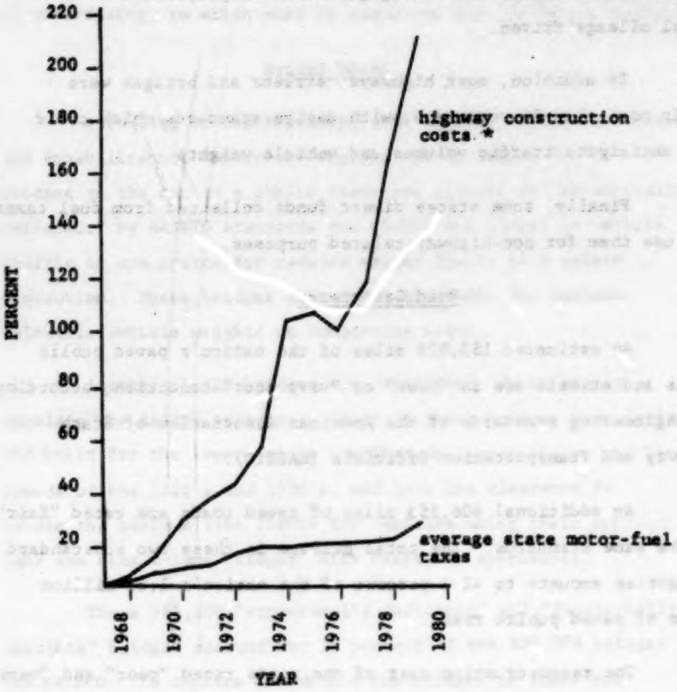
The data were developed from information provided by the Federal Highway Administration, the National Governors Association, various state departments of transportation, the American Association of State Highway and Transportation Officials, and the Highway Users Federation.

Highway Financing Problems

Primarily because of inflation, tax revenues generated by most states, counties and municipalities are insufficient to adequately maintain and upgrade existing road systems. Nationwide, highway construction costs increased by some 208 percent between 1967 and 1979; however, the federal highway user-taxe has not increased, remaining at 4 cents per gallon since 1959. Average state user-taxes have risen by less than 3 cents per gallon in the past 20 years. The average state gasoline tax (as of May 1, 1980) was 8.7 cents per gallon.

Most states and other levels of government have been unable to provide adequate highway budgets. Conventional funding mechanisms will not provide the revenues required to maintain highways and streets at adequate service levels.

INCREASES IN HIGHWAY CONSTRUCTION COSTS
VS.
INCREASES IN STATE FUEL TAXES, 1967-79



* From Price Trends for Federal-Aid Highway Construction

Motorists are using less fuel because of increased use of smaller cars, engines that are more fuel-efficient and continuation of the 55-mph speed limit. Less fuel purchased results in fewer user-tax dollars being generated in proportion to the total mileage driven.

In addition, most highways, streets and bridges were built more than 50 years ago, with design standards which could not anticipate traffic volumes and vehicle weights.

Finally, some states divert funds collected from fuel taxes and use them for non-highway-related purposes.

Road Deficiency

An estimated 163,028 miles of the nation's paved public roads and streets are in "poor" or "very poor" condition, according to engineering standards of the American Association of State Highway and Transportation Officials (AASHTO).

An additional 606,553 miles of paved roads are rated "fair" by the same standards. The total mileage in these two substandard categories amounts to 42.1 percent of the nation's 1.83 million miles of paved public roads.

The reconstruction cost of the roads rated "poor" and "very poor" would be approximately $97.8 billion, based on a national average cost of $600,000 per mile. The roads in "fair" condition require resurfacing, which would cost $51.9 billion at an average of $85,500 per mile. The total estimated cost of repair amounts to $149.7 billion in 1980 dollars, without allowing for uncertain future inflation levels. Average resurfacing and reconstruction costs are based on a survey of 15 state highway departments.

If the roads now rated "fair" are not resurfaced within the next six years, they will deteriorate to "poor" condition. That means they will need reconstruction, which costs seven times that of resurfacing, to which must be added the cost of future inflation.

Bridge Needs

According to the February, 1980 Highway Bridge Replacement and Rehabilitation Report to Congress, an estimated 84,775 bridges on the nation's public roads are classed as "structurally deficient" by AASHTO standards and either are closed to vehicle traffic or are posted for reduced weight limits as a safety precaution. These bridges are unable to handle the maximum allowable vehicle weights on connecting roads.

Another 96,325 bridges are considered "functionally obsolete" by AASHTO standards. Most of these bridges were designed and built for the lower-volume traffic, smaller vehicles and lower speeds of the 1920's and 1930's, and lack the clearance to handle the maximum size limits for vehicles using their approach roads. Many are single-lane bridges, with hazardous approaches.

These 181,100 "structurally deficient" and "functionally obsolete" bridges account for 30 percent of the 600,000 bridges in the nation. To replace or rebuild the bridges in these two categories, would cost an estimated $38.9 billion to which must be added increases of future inflation.

Catch-up Costs

At present, the amount of federal, state and local highway user-taxes collected is not sufficient to maintain the nation's roads, streets and bridges in adequate condition.

In 1980 dollars, it would cost an estimated $188.6 billion to "catch up" on the nation's existing road and bridge needs. By comparison, the total amount expended by all levels of government for improving roads and bridges averages only $7.6 billion per year. At this rate, it is impossible to meet road needs as they arise, let alone catch up with them.

Impact of Bad Roads and Bridges

Substandard road and bridge conditions have a significant impact on motorists, and indirect impact costs on non-highway users.

Vehicle Operating Costs: Driving over rough, rutted and broken pavement results in increased fuel consumption, damage to brake, steering and suspension systems and excessive tire wear. In 1979, the most recent year of record, the added cost of driving on deficient roads totaled some $19.2 billion, or a per-person added cost of $137.

Fuel Waste: Loss of traction over uneven pavement and vibration creates an uneven power flow through the vehicle's drive-train. The resulting fuel loss from driving over substandard roads and bridges amounts to some 12.4 billion gallons of gasoline a year worth $15.5 billion, at mid-1980 prices. That amount is equivalent to $110 for every driver in the United States.

Safety: Obsolete road design was primarily responsible for 21.4 percent of all accidents in America last year. These 3.85 million accidents caused by hazardous roads last year cost drivers some $8.4 billion (including payments to victims and their survivors).

Economic Benefits of Road and Bridge Repair Programs: In 1980 dollars, it would cost an estimated $188 billion to catch up on the nation's road and bridge needs. (See "Catch-Up," page 4.) A 10-year, $18.8 billion a year road repair program would create an estimated 1,279,415 jobs per year -- 575,280 jobs in the construction industry and another 704,135 jobs in the related fields of equipment manufacture and supply, and materials production and transportation.

Funding Mechanisms

The conventional funding mechanism used by all states is the user-tax levied on the cost of gasoline, diesel fuel and automotive products. Four cents per gallon in federal user-taxes for gasoline and diesel fuel, plus 5 to 13.5 cents per gallon in state taxes, are collected at the pump. Gasohol is exempted from the federal motor-fuel tax and some state taxes. (See page 11 for an explanation of gasohol exemptions.)

The federal government also collects taxes on tires, inner tubes, oil, parts and accessories, and trucks and buses. A federal $3 per 1,000 pounds gross weight tax is levied on vehicles weighing over 26,000 pounds when fully loaded. This tax does not apply to buses used in local transit service. Many states use drivers license fees, as well as vehicle registration fees, for highway needs.

The prevailing funding mechanism has become unsatisfactory because motor-fuel taxes, which generate the bulk of all highway revenues, do not adjust with inflation. Simultaneously, improved fuel consumption is further reducing real highway revenues. At least 28 state legislatures are considering motor-fuel tax increases in some form in 1980; 10 of these already have passed such legislation.

To better meet highway and bridge needs, a variety of innovative funding mechanisms has been developed. The following funding mechanisms either are in use or are being considered by various state governments.

Variable Fuel Tax

A variable fuel tax is one that reflects changes in price. This financing mechanism refers to both "percentage" gasoline taxes and "cents-per-gallon" taxes that are reviewed and adjusted on a scheduled basis. A "percentage fuel tax" is a tax based on a percentage of the state's average wholesale or retail price of fuel at stated intervals. A cents-per-gallon variable or indexed fuel tax is adjusted in uniform increments at predetermined intervals. Either type of variable fuel tax may have a "floor," or minimum tax, and a "ceiling," or maximum tax.

States which have enacted variable gas taxes are Washington, New Mexico, Kentucky, Indiana, Nebraska and Massachusetts.

> Washington -- The Washington state legislature enacted a variable gas tax on motor fuel, effective July 1, 1977. This tax fluctuates with the retail price of gasoline. The legislation specifies that the tax rate will not be lower than 9 cents per gallon, nor higher than 12 cents. The legislature's action had the immediate effect of raising the tax from 9 to 11 cents per gallon. It is now at the maximum 12-cent level. At current fuel consumption rates, Washington's variable tax generates an additional $60 million a year over previous funding levels.
> (NOTE: Since this tax reached its ceiling of 12 cents per gallon shortly after it was enacted, it no longer functions as a variable tax.)

New Mexico -- Effective July 1, 1980, New Mexico's user-tax on motor fuel was increased by 1 cent for every 10-cent increase in the average statewide wholesale price of fuel. The new tax expires July 1, 1983 and has a ceiling of 11 cents per gallon. According to the state DOT estimates, the variable tax could provide over $10 million in additional highway revenues in the first year.

Kentucky -- Effective July 1, 1980, Kentucky's new percentage gas tax replaced its former 9 cents-per-gallon tax with a measure that represents 9 percent of the statewide average wholesale price of gasoline. The tax has a floor of 9 cents-per-gallon and a ceiling of 13¼ cents-per-gallon. It is expected that Kentucky's new variable tax will produce more than $21 million in new road revenues its first year.

Indiana -- Effective July 1, 1980, Indiana's new variable gas tax replaced its former 8 cents-per-gallon gas tax with an eight percent tax based on the state's average retail price of gasoline. Indiana's new tax is subject to ceilings that would prevent it from exceeding 12 cents-per-gallon in 1980, 14 cents-per-gallon in 1981 and 16 cents-per-gallon in succeeding years. DOT officials predict that the state's variable tax could yield about $84 million in new highway revenues by 1981 and as much as $200 million by 1982.

Nebraska recently enacted a two-phase fuel tax increase. The first phase was the implementation of a one cent increase added to the state's 10.5 cents per gallon fuel tax. The second stage, effective October 1, 1980, calls for an excise tax of 2 percent of the per-gallon fuel cost for the Nebraska state vehicle fleet, to be levied on each gallon of fuel sold. The net effect of both tax increases should be a tax of 13.3 cents per gallon by October 1, 1980. Nebraska expects the two taxes to yield an additional $14.2 million in revenues in their first year.

Massachusetts recently passed a fuel tax increase from 8.5 cents-per-gallon to 10 percent based upon the wholesale price of gasoline. The bill went into effect in August 1980. It is estimated that the wholesale cost in October will be $1.00, with the net affect being a 1.5 cents-per-gallon tax increase.

Certain states have achieved the benefits of a variable fuel tax by extending already-existing state sales taxes (from which motor fuels had been exempt) to the wholesale or retail price of gasoline in addition to the existing cents-per-gallon tax. In states where the public has been promised no tax increases, this approach is to remove an exemption from an existing sales tax rather than adding a new tax or increasing the rate of an existing tax. However, revenues from sales taxes in most of these states normally go to the state general fund and are not necessarily used for road improvements.

This funding mechanism is primarily a supplement to existing user-taxes and not a replacement for those taxes. States that have added the sales tax to the existing motor-fuel tax

STATE	CURRENT TAX PER GALLON	SALES TAX
California	7¢	6%
Georgia	7.5¢	3%
Hawaii	8.5¢	4%
Illinois	7.5¢	5%
Indiana	8%	4%
Michigan	11¢	5%
Mississippi	9¢	5%
New York	8¢	4%

Budget Indexing

This mechanism is applicable in any state which has highway user-taxes that are dedicated to highway-related purposes, but which are insufficient to meet highway needs. It is used most frequently when there are defined needs that the legislature wishes to satisfy

In the case of Texas, the legislature identified highway construction needs for 20 years and agreed to fund them. It uses an existing Tax Clearance Fund to make up the shortfall between the cost of the highway work and revenues from dedicated highway user-taxes. The Fund is administered by a Committee composed of the governor, lieutenant governor and comptroller of public accounts.

Each year, the Texas highway department's budget includes an estimate of the cost of the highway program, including inflation. At the end of the year, the actual cost of the program is calculated and the difference is made up by the state General Fund. This system provides a consistent highway program.

Tolls

Some states are resorting to the oldest form of highway financing to meet current revenue needs. Connecticut, Florida and Oklahoma, for example, rely on toll revenue to supplement their highway budgets. These states are continuing to collect tolls even after retiring the debt incurred to construct the highways. In some instances, tolls are continued at reduced rates to cover only maintenance and upgrading of these particular roads. The initiation and continuation of tolls is based on the concept that there are no such things as free roads.

Dedication of Severance Taxes

Severance taxes are imposed on producers of coal, natural gas, petroleum and timber to compensate the citizens of a state for the natural resources that are removed from their land or adjacent waterways. Thirty-one states collect a total of some $2 billion in severance taxes each year. Six states levying coal-severance taxes dedicate a portion of the resulting revenue for highway improvement: Arkansas, Kentucky, Maryland, Montana, Tennessee and Wyoming.

Energy-Road Tax

This mechanism is an outgrowth of the dedication of coal-severance taxes for highway improvement. In Kentucky, part of the dedicated coal-severance taxes is being used to upgrade badly deteriorated coal-haul roads. Most of the deterioration is attributed to increased traffic by heavy trucks carrying coal from mines to utility plants or rail transshipment points. The evident need for massive upgrading of coal-shipment roads in Kentucky gives support to the concept of levying specific user-taxes on energy producers who are heavy users of certain roads. To date, no state has imposed a so-called energy-roads tax, but the concept is under review in 14 states.

General Funds

Some states are considering use of the state's general funds in a manner other than budget indexing (page 9) to supplement the highway revenue generated from user-taxes. This, however, tends to be a stop-gap measure and requires annual legislative action, unless there is a permanent legislative dedication of the "General" funds, clearly assigned to maintenance and reconstruction of the road and

These innovations in highway financing are getting serious consideration because public consumption of motor fuel -- the major source of highway tax revenue -- is declining in proportion to the total mileage driven.

The shrinkage in the tax-revenue base is occurring at a time when inflation is at an all-time high, reducing the purchasing power of the highway revenue dollar.

New revenue sources that are cushioned from the impact of inflation must be found quickly, or the nation's roads and bridges will continue to deteriorate at a rapid rate, adding to vehicle operating costs and furthering the inflationary spiral.

Gasohol

Another factor that is further complicating the nation's highway financing problem is the growing use of gasohol as a substitute for gasoline.

Sale of gasohol generates much less tax revenue for road maintenance and improvement than the sale of gasoline. Fifteen states offer user-tax reductions and exemptions to encourage the production and consumption of gasohol (which is produced from various types of grain and wood products). The incentives range from a 1-cent per gallon reduction in Connecticut and Maryland to total exemption from the user-tax in Arkansas, Iowa, Louisiana and Oklahoma.

In Iowa alone, the tax loss from the present gasohol exemption is expected to cost the state $14.4 million this year, of nearly $1.2 million a month in lost revenue.

The loss in cents per gallon for the 15 states now offering a tax incentive for gasohol use is as follows:

	Existing Fuel Tax	-	Amount Exempted For Gasohol	=	Amount Gasohol is Taxed
Arkansas	9.5¢		9.5¢		None
Colorado	7¢		5¢		2¢
Connecticut	11¢		1¢		10¢
Iowa	10¢		10¢		None
Kansas	8¢		5¢		3¢
Louisiana	8¢		8¢		None
Maryland	9¢		1¢		8¢
Montana	9¢		7¢		2¢
Nebraska	11.5¢		5¢		6.5¢
New Hampshire	11¢		5¢		6¢
North Dakota	8¢		4¢		4¢
Oklahoma	6.5¢		6.5¢		None
South Dakota	11¢		3¢		8¢
Utah	9¢		5¢		4¢
Wyoming	8¢		4¢		4¢

Tax exemption or reduction proposals for gasohol are pending in eight states: California, Illinois, Massachusetts, Michigan, Ohio, Pennsylvania, South Carolina and Wisconsin.

Proposals to reduce or eliminate gasohol user-taxes have failed in Florida, Hawaii, Idaho, Minnesota, Missouri, Nevada, New York, North Carolina, Oregon, Texas, Utah and Washington legislatures.

At present, gasohol is exempt from the 4-cent-per-gallon federal gas tax, which is collected by the states. The exemption, part of the Windfall Profits Bill, is not due to expire until September 30, 1992.

Other Recent Legislative Action

As of June 1, 1980:

- **South Dakota increased its 9 cents-per-gallon fuel tax to 12 cents.**
- **Virginia increased its 9 cents-per-gallon fuel tax to 11 cents.**
- **Wisconsin increased its 7 cents-per-gallon fuel tax to 9 cents.**
- **Minnesota increased its 9 cents-per-gallon motor-fuel tax to 11 cents.**
- **Pennsylvania increased its 9 cents-per-gallon fuel tax to 11 cents.**
- **Alabama increased its 7 cents-per-gallon motor-fuel tax to 11 cents.**

Variable fuel tax measures are under consideration by several legislatures, including Alaska, Colorado, Nevada and Oklahoma.

MOTOR-FUEL TAX RATES

(as of July 1, 1980)

NOTE: Gasoline tax and diesel tax are the same in most states. Where different, diesel tax is shown in parentheses.

STATE	CURRENT TAX ¢/gal.	LAST CHANGED	SALES* TAX %	LOCAL TAX
Alabama	11[1]	1980 - from 7		yes
Alaska	8	1961 - from 7		
Arizona	8	1974 - from 7		
Arkansas	9.5 (10.5)	1979 - from 8.5		
California	7	1963 - from 6 (7)	6%	
Colorado	7	1969 - from 6		
Connecticut	11	1976 - from 10		
Delaware	9	1978 - from 11		
Dist. of Col.	10	1975 - from 8	6%	
Florida	8	1971 - from 7		yes
Georgia	7.5	1971 - from 6.5	3%	
Hawaii	8.5	1975 - from 5	4%	yes
Idaho	9.5	1976 - from 8.5		
Illinois	7.5	1969 - from 6	5%	yes
Indiana	8%[2]	1980 - from 8¢	4%	
Iowa	10 (11.5)	1979 - from 8.5 (8)		
Kansas	8 (10)	1976 - from 7 (8)		
Kentucky	9%[3]	1980 - from 7		
Louisiana	8	1969 - from 7		
Maine	9	1971 - from 8		
Maryland	9	1972 - from 7		
Massachusetts	10%[1]	1980 - from 8.5		
Michigan	11 (9)	1978 - from 9 (7)	5%	

STATE	CURRENT[1] TAX ¢/gal.	LAST CHANGED	SALES TAX %	LOCAL TAX
Minnesota	11	1980 - from 9		
Mississippi	9 (10)	1973 - from 8 (10)	5%	yes
Missouri	7	1972 - from 5		
Montana	9 (10)	1979 - from 8 (9.75)		
Nebraska	13.3	1980 - from 10.5	2%[4]	
Nevada	6	1955 - from 5.5		yes
New Hampshire	11	1979 - from 10		
New Jersey	8	1972 - from 7		
New Mexico	8	1967 - from 6		
New York	8 (10)	1972 - from 7 (9)	4%	yes
North Carolina	9	1969 - from 7		
North Dakota	8	1977 - from 7		
Ohio	7	1959 - from 5		
Oklahoma	6.5	1949 - from 5.5		
Oregon	7	1967 - from 6		
Pennsylvania	11	1979 - from 9		
Rhode Island	10	1975 - from 8		
South Carolina	11[4]	1980 - from 10		
South Dakota	12	1980 - from 9		
Tennessee	7 (8)	1963 - from 7 (7)		
Texas	5 (6.5)	1955 - from 4 (4)		
Utah	9	1978 - from 7		
Vermont	9 (0)	1971 - from 8		
Virginia	11	1980 - from 9		yes
Washington	12%[5]	1979 - from 11		
West Virginia	10.5	1978 - from 8.5		
Wisconsin	9	1980 - from 7		
Wyoming	8[6]	1976 - from 7		

* In all states except Nebraska, revenues from sales taxes go to the state general fund. In Nebraska, these funds are used for highway programs.

[1] Effective August 1, 1980.

[2] Indiana tax rate is explained on page 7.

[3] Kentucky tax rate is explained on page 7.

[4] Effective October 1, 1980.

[5] Washington tax rate is explained on page 6.

[6] Wyoming diesel taxes were switched from a rate of 7 cents per gallon in 1968 to zero, but were replaced with a tax based upon ton-miles.

CONSERVING ENERGY THROUGH IMPROVED HIGHWAYS

A Position Paper

Prepared by the

AASHTO-AGC-ARTBA JOINT COMMITTEE

1980

THE

AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

THE

ASSOCIATED GENERAL CONTRACTORS
OF AMERICA

THE

AMERICAN ROAD AND
TRANSPORTATION
BUILDERS' ASSOCIATION

PREFACE

At its July, 1979 Executive Session, the AASHTO-AGC-ARTBA Joint Committee created a task force to investigate the extent to which improved and upgraded highways contribute to our nation's goal of conserving energy.

This position paper, which is the product of that efforts, explains the positive relationship between improved highways and energy conservation.

Among the position paper's many key findings are the following:

- There are right now some 770,000 miles, representing 42 percent of the nation's paved highways, in need of repair. (Page 3)
- Every mile of deficient pavement can increase fuel consumption by more than two-thirds over pavement in good condition. (Page 8)
- A deteriorated road can easily undermine the added fuel efficiency of even the most advanced economy auto. (Page 3)
- A highway's "operational efficiency is directly related to energy efficiency." Simply put, energy conservation is the natural product of upgraded highways. (Page 5)
- The amount of fuel wasted due to the condition of pavement surfaces may be as high as 12.5 billion gallons equaling about 300 million barrels of oil annually. That equals about 88 gallons of gas wasted for every licensed driver. (Page 9)
- Real investment in the nation's highway system has decreased to a point where current levels of service, whether adequate now or not, can no longer be maintained. (Page 13)

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SECTION I: INTRODUCTION

The 1973 Arab Oil Embargo and the Summer of '79 gasoline shortages have made the $3 per barrel cost of imported oil seem a more distant memory than the ten years it has been.

Today's price of around $35 for that same barrel of imported crude is a strong argument for the need to conserve. And with rubber tire vehicles using about 44 percent of all the petroleum used in this country every day, according to the Federal Highway Administration (FHWA), it is obvious that efficiency on the highways will help greatly to loosen the grip of OPEC.

There can be no argument with the nation's need and ability to conserve its energy resources.

Old highway mercury lamps have been replaced with new high-intensity sodium lamps which use half the energy, the nation's highest speed limit has been cut to a more fuel-efficient 55 miles-per-hour, the size and shape of our vehicles have been transformed to cut wind resistance and minimize weight, radial tires have taken the place of bias ply tires and increased engine fuel-efficiency has become not only the mandate of Congress but the demand of the car-buying public as well.

Due to the skyrocketing rise of petroleum product prices, conservation in all its forms has become increasingly economical and, in turn, has gained many philosophical adherents.

In a speech before a conference on "Energy Conservation in Transportation and Construction" held in late 1975 in Atlanta, Georgia, West Virginia Senator Jennings Randolph said that "our huge commitment to motor-vehicle transportation...gives us an obligation to obtain the maximum return from the dollars invested" and by "improving the efficiency of highway usage, we can also contribute to the conservation of fuel."

The national commitment to motor-vehicle travel has not diminished in the ensuing five years. In fact, the mix of mobility and commerce served by the more than 3.8 million miles of highways in the United States is even greater today. The FHWA put it this way:

> The nation's highways provide the backbone of our national transportation system. The highway system carries 85 percent of all passenger miles of travel, 21 percent of all intercity ton-miles of freight and nearly 100 percent of urban goods movement.

These components of the current conservation effort, successful to be sure, have been prevented from fostering maximum efficiency because the new cars are traveling and the new lights are lighting a deteriorating highway system.

A deteriorated road can easily undermine the added fuel efficiency of even the most advanced economy auto. (See Appendix A)

This premise is supported by an October 1979 FHWA report which concludes that, over a ten-year period, "the energy consumed by maintenance activities is insignificant when compared to the resultant energy saving." The benefits of Interstate System construction on fuel consumption make this point. Driving on the Interstate can cut fuel use by as much as 20 percent compared to driving on an arterial highway in similar condition with at-grade intersections.

Research in the area of fuel economy and good roads, detailed in Section II of this report, indicates the potential for even greater fuel economy derived from road rehabilitation, restoration, resurfacing and reconstruction.

There are right now some 770,000 miles, representing 42 percent of the nation's paved highways, in need of repair, according to The Road Information Program (TRIP), a Washington, D.C. research firm. The upgrading of these deficient miles would provide the strong effort required to curtail "direct" energy consumption. In the process it would lead to the creation of possibly the most fuel efficient transportation system in the world.

As President Carter said in a 1979 address to the nation on energy: "Conservation is our cheapest and cleanest energy source." And, according to the FHWA, highway transportation is energy intensive and has great potential for energy saving.

SECTION II: RESEARCH FINDINGS

The steps taken by America's motorists -- both literally and figuratively -- to curtail fuel consumption on the nation's highways showed significant results in 1979.

The combination of conservation efforts ranging from the purchase and use of more fuel-efficient automobiles to the elimination of unnecessary travel saw energy consumption on the highway drop 3 percent over the previous year. Even more significant was the savings surge at year's end. Over the last quarter of 1979, motorists averaged using 5.5 percent less gas than in the similar period in 1978.

But the successful development of more fuel-efficient driving habits offers only a partial answer to the national question of energy conservation. The design and condition of the roads may, in the end, play an even greater role. As stated by the FHWA, a highway's "operational efficiency is directly related to energy efficiency." Simply put, energy conservation is the natural product of upgraded highways.

Highway construction activities, such as those embodied in the "3R" program -- restoration, rehabilitation and resurfacing -- as well as reconstruction, will all enhance the energy efficiency of a highway. (See Appendix B)

Motorists used some 113 billion gallons of gasoline last year to power most of the nation's 154 million registered vehicles which traveled over 1.5 trillion miles on the nation's highways. The size and scope of these figures graphically illustrate the continuing and close relationship between Americans and their automobiles. It is also this relationship which makes any program designed to cut the cost of operating a vehicle without sacrificing mobility of vital national interest. Conservation through highway improvement is just such an energy efficient approach.

Of all the variable costs of operating a vehicle -- and these include tire wear, oil consumption and some maintenance -- fuel consumption is by far the most important.[1] It should be noted too that fuel consumption is also far more "sensitive to variation in road design and traffic conditions than are any of the other items of vehicle expense."[2]

Research has shown that there are seven features of road design which can affect motor-vehicle fuel consumption.[3] These design factors are: profile, horizontal alignment, intersections at-grade, entrance-exit points, road and shoulder width, road and shoulder length and surface condition.

The research concensus is that "energy savings due to highway design result from the smooth operation of vehicles on roadways with gentle geometry, smooth surface and proper traffic control measures."[4]

These fuel consumption factors can easily subert energy conservation by placing bumpy pavement in the way of free-rolling radial tires and steep grades in the path of hard-working, four-cylinder economy cars.

A deteriorated road surface "extracts a fuel penalty due to tire slippage and/or speed changes" which might be required to negotiate potholes and other surface deficiencies.[5]

In an effort to fully assess the surface condition of the nation's highways, the Federal Highway Administration adopted a method of rating roads developed by the American Association of State Highway and Transportation Officials (AASHTO).

Under this formula, highway pavement condition is classified by a Present Serviceability Rating (PSR), which varies from a high of 5.0 for new or nearly new pavement, to 0.0 for completely deteriorated pavement. This scale was applied nationwide.

Generally, a rating below 2.5 for high usage, high speed facilities would indicate that such facilities are in need of either resurfacing or complete reconstruction. Under the rating system, low volume, low speed roads would be in need of action at a rating of 2.0 or below.

A report, "The Status of the Nation's Highways: Conditions and Performance," was transmitted to Congress in September 1977. This survey paints a picture of a system of roads in serious need of upgrading. The findings were significant in that more than 40 percent of the nation's paved federal-aid system roads were found to be in need of surface improvement. Yet, while resurfacing and reconstruction headed the list of requirements, significant congestion factors, indicating a growing need for increased capacity as well, were also present.

The report to Congress takes on even greater importance in light of the fact that the federal-aid highway system is in the best condition of any of the nation's road systems and yet represents only 21 percent of the national road-mileage total. The Road Information Program (TRIP) estimates that the total number of deficient roads in the United States may be as high as 770,000 miles. The situation is compounded by the fact that every mile of deficient pavement can increase fuel consumption by more than two-thirds over pavement in good condition.[6]

Testing done by Paul J. Claffey and Associates of Potsdam, N.Y. on behalf of the National Highway Cooperative Research Program detailed the effects of deteriorated pavement upon fuel consumption over varying surfaces and at varying levels of speed. His findings indicate that at a base speed of 40 miles-per-hour, deteriorated, paved roads can increase fuel consumption by 56 percent and that as speed increases, the effect of the substandard pavement on fuel consumption also increases.[7] In fact, Claffey determined that at 50 miles-per-hour, a car could use up to two-thirds more fuel over deteriorated pavement.

A similar relationship between surface condition and fuel consumption for trucks and buses was also proven by the Claffey tests.

In a report prepared by TRIP and released in May 1980, motorists in Michigan were found to be wasting 712.6 million gallons of gasoline annually due to the deteriorated condition of nearly 19,000 miles of the state's highways. Making use of Claffey's findings and relating substandard roads to increased fuel consumption, the report concluded that deficient pavement surfaces were adding as much as 55 percent to the total fuel used and, subsequently, to the cost of operating a vehicle in the state.[8]

The TRIP report based its fuel consumption standards on a 1980, six-cylinder Chevelle. It found that, as noted in the Claffey study, increased fuel consumption resulted from a loss of traction on uneven road surfaces and because of an uneven power flow through the drive train due to excessive vibration.[9] As noted in the introduction to the NCHRP report 111, the tests that verified this relationship were conducted at 22 locations in three states. Types of roadway used (for the tests) consisted of Interstate highways, state primary roads, secondary roads and city streets. Also, each test site represented a particular combination of grade, alignment and surface condition required to obtain a varied, realistic sampling.

Taken on a national level, TRIP estimates that the amount of fuel wasted due to the condition of pavement surfaces may be as high as 12.5 billion gallons equaling about 300 million barrels of oil annually. That equals about 88 gallons of gas wasted for every licensed driver.[10]

Clearly, a substandard highway pavement exacts a heavy toll from motorists and as the price of gasoline drives higher, so too will the cost of fuel which is wasted in driving over those deteriorated roads.

But a deficient surface is not the only energy inefficient aspect of a roadway. According to all fuel consumption studies made to date, congested roadways are also a clear "detriment to efficient utilization of our energy resources."[11]

As defined in the "Status and Conditions" report filed with Congress in 1977, the FHWA defines congestion as "the ratio of travel to the maximum amount of traffic a highway can accommodate each hour."[12] That is, as the ratio of actual traffic over design volume approaches a value of "one," a road becomes more congested. In the 1977 report to Congress, the FHWA set a "congestion" threshold of .80 and a "serious congestion" problem threshold of .90. A "serious congestion" problem would be one which inhibits traffic flow.

In urban areas, fully 23 percent of both arterial and Interstate System mileage are faced with peak-hour congestion which affects traffic flow. In terms of miles traveled, the situation is even worse. Approximately 40 percent of all peak-hour urban travel is done over congested roadways.[13]

Though the problem is most severe in urban areas, there are some developing rural bottlenecks.[14] Relief, and more efficient energy usage patterns, could be derived, however, with the application of various construction alternatives.

One such construction alternative is high occupancy vehicle (HOV) lanes. The development and success of such a facility in carrying buses and commuter car-pools, as typified by the Shirley Highway which connects Northern Virginia's suburbs with the District of Columbia, can greatly enhance fuel efficiency. HOV lanes, either designated or constructed, can greatly reduce the travel time of buses and pool vehicles.[15]

In concert with the reduced travel time will come reduced energy requirements to cover the same travel distance. And despite the great amounts of energy required to construct such a facility, "initial construction expenditures (of energy) will be offset by reduced fuel consumption of vehicles."[16] (See Appendix C)

SECTION III: CONCLUSIONS

On the basis of the foregoing examination of current research findings, there can be no doubt that the upgrading and improving of the nation's highway system will yield significant fuel economies.

However, the mere identification of the relationship between good road surfaces and adequate capacity and increased fuel efficiency will not alone lead to fuel conservation. There must be an active highway program if the nation is to reap such benefits. And, according to most indicators, at a time when the need for highway improvement has never been greater, the nation's ability to respond has diminished.

If the FHWA's report to Congress can be used as a yardstick to measure the effort to upgrade the nation's system of roads, then many of America's highways may be in for a long wait. And in the meantime, America's motorists will be forced to pay an ever increasing toll in excess vehicle operating costs as those roadways continue to deteriorate.

As stated in that 1977 report:

> Although actual highway investment levels increased during the study period (1970-1975), the effective investment, or purchasing power, for capital improvements was substantially reduced due to inflation. This problem, coupled with the fact that the effective share per total highway dollar actually resulting in capital improvements has declined, may have restricted state and local efforts to reduce deficiencies on many types of roadways.[1]

The effect of inflation upon the costs of capital improvement cannot be given too much emphasis. According to figures compiled by the FHWA's Office of Engineering, the cost of highway and bridge construction by 1979 had risen to 276 percent of the cost a decade earlier. The trends are for more of the same in future years. Clearly, real investment in the nation's highway system has decreased to a point where current levels of service, whether adequate now or not, can no longer be maintained.

It was the finding of no less an authority than the National Transportation Policy Study Commission, in its investigation of transportation needs in the United States through the year 2000, which said it most directly:

> It appears that forecast revenues from highway user charges will be insufficient to maintain current levels of service on the nation's roads.[2]

With the link between highway improvement and fuel conservation established, with the need for increased fuel-efficiency rising with the price of imported oil and with existing conservation efforts hindered by deteriorating highways, it is obvious that a renewed national commitment to its primary transportation system is not only necessary, it is overdue.

SECTION IV: APPENDICES

APPENDIX A: FHWA NOTICE N.5520.4

There is now active attention being given to energy conservation from the "ground up," an effort to cut fuel consumption in the construction and rehabilitation of the nation's roads. In a March 21, 1980 policy statement on conservation in the federal-aid highway program (FHWA Notice N.5520.4) the Federal Highway Administration declared "that the planning, design, construction, management and operation of the federal-aid highway system will be conducted in a manner that conserves fuel, maintains the greatest degree of personal and economic mobility consistent with the availability of fuel, and maintains a state of emergency preparedness in the event of an abrupt curtailment."

To these ends there have already been made great strides in the areas of:

*recycling, which results in energy and cost savings due to decreased transportation of materials and the rescue of asphalt binder,

*sulphur, used as an asphalt extender, and the use of

*native aggregates, which also curtail transportation thereby saving time and money as well as fuel.

APPENDIX B: HIGHWAY ENERGY USE CLASSIFICATIONS

As defined in a recent report by the California Department of Transportation (Caltrans), "direct" energy is that which is "consumed in the actual propulsive effort of a vehicle, such as the thermal value of the fuel, or quantity of electricity used in the engine or motor." This complements the other form of highway-related energy consumption identified by the Caltrans report as "indirect" energy. This is described as that energy which is consumed in the "building and operating" of a highway. The conservation effort aimed at cutting "indirect" consumption is already underway, while the "direct" consumption conservation potential is only now attracting attention. For this reason and the superior efficiencies which can result from affecting the use in "actual propulsive effort" this examination deals only with that energy type.

Despite attention, only now coming to this area of conservation, there exists great energy-saving potential beyond the reshaping of automobiles and motorists' driving habits inherent in "direct" energy consumption. This is due in part to its great reliance upon petroleum-based fuels.

Whether it is gasoline or a middle distillate, petroleum-based fuels keep the nation moving. It has been determined that while "transportation consumes a variety of substances as fuels, approximately 96 percent of these fuels are derived from petroleum."

APPENDIX C: THE CASE FOR CONSERVATION THROUGH CONSTRUCTION

ENERGY STUDY

This study projects the energy-related effects of two proposed alternatives in a transportation program. Both alternatives involve roadway transportation.

DESCRIPTION

An existing major arterial roadway in an urban area does not have the capacity to carry the projected peak-hour traffic in future years. Congestion and slowdowns are expected to begin this year and continue to increase. The state transportation agency was aware of the predicted congestion, and has obtained sufficient right-of-way to allow a widening of the existing four-lane road when conditions warrant such action.

A decision must now be made whether or not to proceed with Alternative 1, which is to construct the widening, or with Alternative 2, which is to leave conditions as-is, (also known as a "no-build" alternative). One of the many factors that must be considered in making the decision is the energy-related effect of each alternative.

The average daily traffic projected to the year 2000, is 25,000 vehicles per day, at a speed of 45 miles per hour. Alternative 1, the construction of two additional lanes, will allow smooth-flowing traffic without peak-hour congestion. The construction will cost a total of $3,300,000 and will be accomplished in one year. Detailed data on design and materials quantities are not available at this preliminary stage. Alternative 2, the "no-build," will incur no construction expenditures, and will thus handle the projected traffic of 25,000 vehicles per day on the existing 5.6 miles of four-lane, flexible (asphalt concrete) pavement. These four lanes cannot, however, handle the projected peak-hour traffic smoothly, and it is estimated that an average of 5,000 vehicles will be involved in congested traffic daily, with the remaining 20,000 vehicles encountering no problems. Maintenance of the roadway will continue under both alternatives.

CONCLUSIONS:

An energy analysis has been conducted in order to compare the two alternative projects under consideration.

Alternative 1, the construction of two additional lanes, will require a substantial one-time energy expenditure related to the construction materials, operations, and equipment in the current year. It will also require the normal maintenance of six lanes of flexible pavement, with its resulting energy consumption. Against this additional energy consumption must be balanced the fact that Alternative 1 will allow free-flowing traffic conditions which will avoid increases in the fuel consumption of vehicles.

Alternative 2, the no construction, or "no-build" alternative, will forego the energy consumption of the construction project, and will require the maintenance of the existing four lanes only. Against this energy savings, must be balanced the fact that Alternative 2 will cause traffic congestion which will increase the fuel consumption of a portion of the total vehicles operating on this road.

The table below provides the results of the energy analysis in terms of equivalent annual energy consumption by each alternative, averaged for the time period thru 2000. Construction energy, and vehicle indirect energy values have been pro-rated according to estimated "useful lives," thus providing meaningful comparisons.

	Equivalent Annual Consumption	
Energy Consumption by Source	Alternative 1 (Construction)	Alternative 2 (No-Build)
Direct (vehicle fuels)	306 billion Btu	341 billion Btu
Indirect - Vehicles	252 billion Btu	266 billion Btu
Indirect - Construction	2 billion Btu	0
Indirect - Maintenance	4 billion Btu	3 billion Btu
Peripheral Effects	Nil	Nil
Total Energy (Annual Average)	564 billion Btu	610 billion Btu
Total Energy in terms of EQUIVALENT BARRELS OF OIL CONSUMED PER DAY:	266 Bbl	288 Bbl

BTU (British themal unit) is a unit of measurement representing the heat energy needed to raise the temperature of 1 pound of water by 1 degree Fahrenheit. A gallon of crude oil is equivalent to approximately 138,000 Btu's and a gallon of gasoline is equivalent to approximately 125,000 Btu's.

The road described in this "Energy Study" has become energy inefficient as it has become "obsolete" -- no longer adequate to handle daily traffic demands. Beyond the increased fuel use due to congestion, an "obsolete" road can inhibit commerce and aggravate potential motor-vehicle accidents.

SECTION V: FOOTNOTES

[1] "Running Costs of Motor-Vehicles as Affected by Road Design and Traffic," Paul J. Claffey and Associates, Potsdam, N.Y., NCHRP report 111, 1971, page 4.

[2] Ibid., page 3.

[3] Ibid., page 4.

[4] "Energy Conservation and the Federal-Aid Highway Program," FHWA, October 1979, page 3.

[5] "Energy and Transportation Systems," Apostolos, J.A.; Shoemaker, W.R.; and Shirley, E.C.; December 1978, Caltrans, page 9.

[6] Ibid., page A-34.

[7] Claffey, page 17.

[8] "The Effect of Substandard Roads on Fuel Consumption in Michigan," TRIP, May 1980, page 6.

[9] Ibid., page 4.

[10] "U.S. Highway and Travel-Related Statistics," TRIP, March 1980, page 3.

[11] "Energy Conservation and the Federal-Aid Highway Program," FHWA, page 27.

[12] "Status of the Nation's Highways: Conditions and Performance," September 1977, page 90.

[13] Ibid., page 91.

[14] Ibid., page 15.

[15] "Energy Conservation and the Federal-Aid Highway Program," FHWA, October 1979, page 21.

[16] "Energy and Transportation Systems," Caltrans, December 1978, page 22.

[17] "Status of the Nation's Highways: Conditions and Performance," September 1977, page 15.

[18] "National Transportation Policies," June 1979, page 171.

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ARTBA
American Road & Transportation Builders Association

Statement

of the

American Road & Transportation Builders Association

before the

Environment and Public Works Committee
Subcommittee on Transportation
96th Congress, Second Session

In re: S. 2913

Witness:

William B. Eline
Chairman
ARTBA

September 9, 1980

525 School Street, S.W., Washington, D.C. 20024 • (202) 488-2722

Mr. Chairman and Members of the Committee:

My name is William B. Kline and I am the general sales manager of Terex Division, General Motors Corporation, Hudson, Ohio. I am here today in my capacity as chairman of the American Road & Transportation Builders Association. ARTBA is a national association dedicated to transportation betterment, with headquarters located in Washington, D.C. Accompanying me is the president of ARTBA, Daniel J. Hanson, Sr.

We welcome this opportunity to participate in these extremely important hearings. We fully recognize the fact that the bill before the subcommittee, S. 2913, is essentially a discussion draft. We wish to commend you, Mr. Chairman, for introducing this bill and holding hearings at this time in order to elicit views on the substance of legislation to be considered early in 1981. The needs of the highway program are immense and this is an appropriate time to begin the legislative process.

We also recognize the wisdom of including a revenue title in the proposed legislation. We must face the fact that the Highway Trust Fund can not support an adequate Federal-aid highway program in the years ahead without a significantly increased revenue base.

ARTBA Supporting Documents

Our testimony today covers a synopsis of our association's views as to the content of the 1981 highway legislation. We have supplemented this testimony with several supporting documents, which include:

1. ARTBA's current Statement of Policy, as approved by the membership at our Annual Convention in February, 1980.

2. ARTBA's response to the Federal Highway Administration's Discussion Paper No. 1, dated June 26, 1980. This discussion paper provided the basis for Federal Highway Administrator John Hassell's testimony to the subcommittee on August 19, 1980.

3. A copy of our 1980 "RU4BT?" Congressional questionnaire on transportation funding. To date, over 120 responses have been received from Senators and House members to our "Are Your For Better Transportation?" survey.

The Impact of Inflation

Also pertinent to our testimony is a recent research publication from the General Motors Research Laboratories. This report is entitled "The Impact of Inflation Upon Highway Maintenance and Construction Costs."

As we all know, the unit cost of highway construction has more than tripled since the year 1967. The inroads of inflation, along with a decline in gasoline consumption, obviously has resulted in an acute highway funding problem. The General Motors report analyzes historic trends in the costs of highway construction and maintenance as compared with general inflation throughout the economy. The results of this analysis are discouraging, to say the least.

Constrution costs can be expected to increase about 1.5 times as fast as inflation in the general economy, as measured by the Producers Price Index. For example, if the general rate of inflation is 12 percent, highway construction costs can be expected to rise by 18 percent. We are speaking here of overall general trends. The Highway Construction Cost Index is subject to short-term fluctuations and will deviate somewhat from the predicted path.

The findings with respect to highway maintenance costs are somewhat less alarming. The expected annual inflation rate for maintenance costs is about one half the general wholesale inflation rate plus about 4 percent. When the general producer price inflation rate is around 8 percent, highway maintenance costs can be expected to increase at about the same rate. When the general producer inflation rate is higher than 8 percent, highway maintenance costs will increase at a slower rate.

These percentages take on greater meaning when applied to specific construction costs. In 1975, for example, the estimated average cost to construct a new urban expressway of six lanes was $8,570,000 per mile, excluding right-of-way costs. If the annual producer price inflation rate would continue at a level between 8 and 12 percent annually, that cost would rise to between $27 and $38 million by 1985. Under the same assumptions, the cost of resurfacing a six-lane certerline mile of Interstate System highway would rise from $327,000 in 1975 to well over $1 million in 1985.

These are the historic trends. It is imperative that all of us who are concerned with highway development are well aware of these facts. We must make every possible effort, in the future, to restrain the inflationary costs which are dramatically affecting the entire highway program.

Controlling Inflation

Providing a stable program level is one of the most important management actions that can be taken to restrain inflation. By its nature, the highway construction program reacts very unfavorably to "peak-and-valley" programming. Contractors invest in construction machinery with the expectation that it will be fully utilized during its useful life. Idle machinery is an economic waste. State and local highway agencies work on annual budgets based on predictable cash flow. Pulling projects back and rescheduling them at some later time is an economic waste.

During the first five months of Fiscal Year 1980, states obligated Federal-aid highway funds at the rate of almost $1 billion per month. Due to budgetary restraints at the Federal level, the rate of obligation has been cut in half since that time. Further uncertainties await the highway program in Fiscal Year 1981.

We recognize a need to restrain Federal spending, and claim no special exemption for the highway program. Nevertheless, as this Committee knows, the Highway Trust Fund is totally solvent and can not operate on a deficit basis. We do point out, however, that efforts to fine-tune the economy by adjusting the level of the highway program have always been very unsuccessful in the past. In all cases it has resulted in much higher program costs at a later date.

Reducing hidden program costs is another way to curtail highway inflation. Over a period of years, the Federal government has added many requirements which have the effect of increasing program costs. While some of these requirements may be beneficial, it is important in a time of economic austerity to reexamine them to see if they are still affordable.

The Davis-Bacon Act sets minimum wage rates for construction workers which are far in excess of the minimum wages for workers in other industries. The Davis-Bacon Act was passed during the Great Depression to prevent unethical contractors from employing workers at starvation wages. Today, the continued existence of the Davis-Bacon Act is an economic waste.

One of the "RU4BT?" Congressional questions relates to the Davis-Bacon Act. Over 120 Senators and House members replied that the proper remedy is to:

1. Repeal the Davis-Bacon Act	36%
2. Reform the administration of the Davis-Bacon Act	41%
3. Continue current law and procedures	23%

It is therefore apparent that over 75% of the Congressmen responding strongly favor changes in the outdated Davis-Bacon Act.

As of August 1, 1980, the Federal-aid highway program is operating under regulations promulgated by the Department of Transportation to insure wider participation by minority business enterprise. The essential objection to these regulations is that they may require state and local agencies to award contracts to other-than-low bidders under certain circumstances. The free and open competitive bidding system is the best assurance that the contracting agency will get the best price available. Failure to accept the best price available is clearly an economic waste!

It is time for reexamination of traditional concepts of highway design and the time-tested methods of construction. This is a task to which the highway agencies and the highway industry must address together in the immediate future. Our old traditional concepts were developed over many years, based on cheap energy, plentiful materials and low interest rates.

Some adjustments are already being made. For example, the recycling of asphalt pavements is a technology which is rapidly maturing. When asphalt was cheap, recycling was not very economical. Higher asphalt prices have now made recycling extremely advantageous.

The FHWA discuss paper, referenced earlier, pointed out that the pinch in highway funding is threatening the highway research program. That program should be expanded. We need to speed up the development of new technologies which offer the hope of reducing costs.

We will conclude this discussion of highway costs with one final observation. In 1957, the first full year of the Interstate program, the highway construction cost index was 87.2. In 1961, it was 80.3, a decrease of about 8 percent. New technology, geared to the construction of Interstate-type highways, made the difference.

The Future Task Before Us

The Department of Transportation is now putting the finishing touches on its 1980 biennial report to Congress on "The Status of

best copy available

the Nation's Highways: Conditions and Performance." This report should be useful to Congress in quantifying the authorizations necessary to carry on an adequate national highway program.

Some excellent information is already available in the final report of the National Transportation Policy Study Commission and in the FHWA discussion paper. The latter document relies rather heavily on the yet-to-be-released status report. Let us comment on just a few of the findings.

The Federal-aid Primary System is reported to be in the best condition of any of the Federal-aid systems. States have essentially given the Primary System priority attention in allocating their capital funding. The FHWA discussion paper makes this significant statement very clear. "Assuming State-only funding would grow with Federal program increases, the Federal share of the 10-year needs would be more than three times the current program level." Such an increase would set Federal-aid Primary authorizations in the magnitude of $6 billion per year. It should be noted that this increase is projected for the system in the best possible condition.

Completion of the Interstate System is an "unachievable goal" given existing funding levels and criteria for the inclusion of work within the Interstate Cost Estimate. The requirement of the Surface Transportation Assistance Act of 1978 that all routes must be under construction or under contract for construction by September 30, 1986, cannot be met under present conditions.

The backlog of major reconstruction needs on the Interstate System is growing at an alarming rate. In 1975, about four percent of all Interstate mileage had pavement which needed major rehabilitation or reconstruction immediately. By 1978, this figure had increased to ten percent.

FHWA's 1979 Bridge Replacement Report, estimates that there are 99,300 bridges eligible for replacement or rehabilitation. This is almost one bridge out of every six. The current estimate of the cost of replacing or rehabilitating all deficient bridges is $33 billion. At an eight percent annual inflation rate, the estimated cost will increase by $2.64 billion per year.

Traffic congestion is also a growing problem on the Federal-aid Urban System. In 1970, only 15 percent of urban arterials and collectors experienced peak period congestion, as defined by the FHWA. In 1978, this figure had risen to over 20 percent. Presently, fourteen percent of the Federal-aid Secondary System is still unpaved. By 1990, nearly 90 percent of today's paved mileage will need major reconstruction.

Highway Safety Needs

The FHWA discussion paper does not cover those highway construction needs directly related to safety. Nevertheless, this category of highway needs presents one of the biggest current challenges. In addition, spot safety improvements have an extremely high cost-effective "pay-off."

This is particularly true in "off-system" safety projects, the traffic signal systems program and the pavement marking program. Although the Surface Transportation Assistance Act of 1978 authorized the safer-off systems roads program, the Department of Transportation and FHWA have never requested any funds. In order to overcome this problem and in the best interests of safety, it is recommended that this program be funded in the future out of the Highway Trust Fund.

The latest figures available (1978) indicate that 75 percent of fatal highway accidents occur on the Federal-aid highway systems. These systems carry about 77 percent of the vehicle miles of traffic. The somewhat better safety record of the Federal-aid systems is due mainly to the exceptionally good safety record of the Interstate System.

In case of non-fatal accidents, the rate if significantly higher on the off-system roads. With 23 percent of the total traffic, they have 31 percent of the non-fatal accidents. It is clear that the highway safety problem extends over both the on-system and off-system roads.

It is readily apparent that higher energy costs are encouraging many Americans to drive smaller cars with lower horsepower. An increasing number of people are turning to motorcycles, mopeds and bicycles. Pedestrian traffic is also increasing, particularly in the densely populated urban areas.

While passenger traffic is moving toward smaller vehicles, higher energy costs motivate truckers to carry heavier loads in vehicles closer to the maximum lawful size and weight. All of these changes are extremely useful in conserving fuel. Electrically powered automobiles are also likely to become economically practical in the near future, in limited situations.

While these changes are welcome, from the standpoint of energy conservation, the mixture of vehicles in the traffic stream poses a distinct safety hazard. One of the chief advantages of the 55 mph speed limit is that it has a tendency to cause all vehicles to travel at roughly the same speed. This tends to minimize passing maneuvers. While a significant proportion of the traffic consists of vehicles not capable of keeping pace with 55 mph traffic, this advantage is completely lost.

We urge that a continuing strong emphasis be placed on the highway safety program. More funds will be needed in the highway programs of the future.

Current Program Level Suggestions

Based on all of the information now available, ARTBA believes that Federal-aid authorizations at a level of at least $13 billion per year are reasonable and appropriate for next year.

We agree with FHWA that a restructuring of the Interstate program is necessary. "Completion" must be defined in a more realistic way in order that all unopened to traffic sections of Interstate highway can be completed. It must be possible for all states to meet the 1986 deadline for the letting of final construction contracts without further extending this date.

Authorizations must be set high enough in order to fund these final contracts.

Items excluded from the redefined "completion" program should be made eligible for the Interstate "4R" program. This program would include both the necessary upgrading of Interstate routes and the continuing program of resurfacing, restoration and rehabilitation of older Interstate routes.

The requirement for these two Interstate programs approximates $6.5 billion per year.

Based on the preliminary needs report, Primary System authorizations in the magnitude of $2.5 billion annually are fully justifiable. The bridge replacement and rehabilitation program is only a "catch-up" program with an obvious need for at least $2 billion per year.

It is suggested that $2 billion be made available for Secondary, Urban and Safety Construction programs.

Despite the magnitude of the suggested authorizations, the resulting program is a modest one in relation to the overall needs. Regular increases should be provided as additional funding becomes available.

Funding Considerations

Consideration of the revenue problem should not overlook the fact that the Highway Trust Fund has a current "check book" cash balance of over $12.2 billion. A substantial Highway Trust Fund balance is necessary as long as the periodic extensions of

the trust fund's life are for relatively short periods of time. The current termination date is September 30, 1984. As this date approaches, it is necessary to store up cash in the trust fund. There must be enough money in the trust fund on the termination date to liquidate all outstanding apportionments. If the Highway Trust Fund is extended indefinitely, this fiscal problem completely disappears.

The funding arrangements for the "pay-as-you-drive" Federal-aid highway system are by far the most conservative in the entire Federal establishment. With the final obligation ceiling set at $7.8 billion for Fiscal Year 1980, the cash balance in the Highway Trust Fund is currently adequate to cover more than 18 months of obligations. The program is further controlled by the Byrd Amendment, which prohibits any apportionments in excess of the estimated capacity of the Highway Trust Fund.

Finally, Congress sets an annual obligation ceiling in keeping with overall budget limitations. There is absolutely no necessity to maintain a multi-billion dollar cash balance in the Highway Trust Fund. In fact, the present cash balance does not keep faith with those motorists who contributed to the trust fund as far back as January, 1979 and their money is still in the "bank."

The present $12.2 billion balance in the Highway Trust Fund should be drawn down in order to help support the program while a program of graduated user tax increases is taking effect.

The Federal motor fuel tax was increased from three cents to four cents per gallon in 1959. As the FHWA discussion paper points out, the 1959 rate was equivalent to an ad valorem tax of 18.6 percent on the average price of regular leaded gasoline. With gasoline selling for $1.20 and upward, the ad valorem rate is currently no more than 3 percent.

The motor fuel tax is just one of several highway-user taxes supporting the Highway Trust Fund. However, it is unquestionably the mainstay of the highway-user tax package. It is generally considered to be the most equitable and reliable source for over 50 percent of the total tax revenue flowing into the Highway Trust Fund. In order to retain the equitable distribution of the tax load, all motor vehicles should be subject to the motor fuel user tax. The current gasohol exemption should be repealed. Early consideration should be given to the levying of an equivalent tax on operators of electrically powered vehicles. If it is deemed desirable to offer a tax break to users of alternative fuel systems, both the incentive and the subsidy should come from sources other than the Highway Trust Fund.

ARTBA supports the principle of a variable motor fuel tax. This could be either a tax levied as a percentage of the average wholesale price or one indexed to an economic indicator such as the Highway Construction Cost Index. Such a tax would adjust automatically to changes in price levels. To that extent, such a flexible tax plan would help to insure the capacity of the

Highway Trust Fund in order to meet its future obligations. At the same time, we recognize that the cents-per-gallon tax has the advantage of producing relatively predictable revenues. As long as the Byrd Amendment is in force, the Highway Trust Fund can not operate in the "red." It is necessary for the Secretary of the Treasury to be able to predict Highway Trust Fund revenues within a resonable range of accuracy.

We recommend therefore that the Federal motor fuel tax be established as a two-tier tax:

1. The existing tax of four cents per gallon should be retained.

2. An additional tax should be levied at four percent of the average wholesale price of gasoline.

With the wholesale price of gasoline currently about $1.00 per gallon, the immediate effect of the two-tier tax would be to increase the motor fuel tax to eight cents per gallon.

One of the objections sometimes expressed to "inflation-proof" taxes is that the tax itself becomes a part of the inflation spiral. If the price of a commodity doubles, an ad valorem tax on that commodity also doubles. The two-tier motor fuel tax would trail significantly behind the commodity price increase, as shown in this table:

Commodity Price	Two-Tier Tax	Two-Tier Tax Expressed as a Percentage
$1.00	$.08	8
1.20	.088	7.3
1.40	.096	6.9
1.60	.104	6.5
1.80	.112	6.2
2.00	.120	6.0
3.00	.160	5.3

We recognize that the average wholesale price of gasoline may vary significantly from state to state. This is especially true where the difference in the price of the various grades of gasoline is taken into account. The most recent American Automobile Association report indicates a 22 cents-per-gallon variation in the average retail price of gasoline. The highest statewide average price was found in Mississippi and California where full-service premium grade gasoline averaged a fraction less than $1.36 per gallon. The lowest average price was found in Minnesota, where self-service regular averaged a fraction less than $1.14 per gallon. Not withstanding this large differential in price, we strongly support the percentage tax principle.

The Department of Transportation estimates that, at the current tax rate, gasoline tax revenues will decline from $4.3 billion in 1979 to $3.9 billion in 1984. The immediate impact of the proposed two-tier tax, of course, would be to approximately double the income from this source. However, this would not, in itself, produce anything close to a doubling of total Highway Trust Fund income. DOT reports that gasoline tax revenues accounted for 60 percent of total Highway Trust Fund income in 1979 and predicts that the share will decline to 50 percent by 1984, at current tax rates.

Other revenue considerations

There is a reasonable expectation that the Federal Highway Administration will be able to submit a useful preliminary report on the Highway Cost Allocation Study early next year. This information should be helpful to Congress in determining how the tax burden might best be distributed among the various classes of highway users. Pending the receipt of this infomation, we defer any recommendations relative to adjustments in Highway Trust Fund taxes other than the motor fuel tax.

"Are You For Better Transportation?"

Within the next few weeks, we will be in a position to present a full report of the Congressional responses to our "RU4BT?" questionnaire. We are finding that there is strong support in Congress for the principle that highway users should pay for the highways through special taxes levied upon them. We also find strong support for the trust fund method of administering these tax revenues.

Two specific questions which over 120 Senators and House mmebers responded to were:

1. Do you support the principle that special taxes should be levied on transportation users to support Federally aided transportation programs?

YES 92% NO 8%

2. Should revenues from special taxes on transportation users be administered through trust funds?

YES 92% NO 8%

It is significant that both questions received over a 90 percent favorable response. In developing future transportation program priorities, the following were emphasized in this order: 1(improving energy efficiency, 2) improving transportation safety,

3) meeting national defense transportation needs and 4) insuring adequate passenger service.

General Long Range Transportation Trends

The final report of the National Transportation Policy Study Commission was published in June, 1979. This report contains an extensive analysis of United States transportation trends, with forecasts to the year 2000. The analysis of social and economic trends makes it clear that both freight and passenger transportation requirements will continue to grow throughout the remainder of the Twentieth Century. It is also clear that we must depend on the highway system for the vast majority of passenger movements and an increasing volume of truck movements. Between 1975 and 2000, NTPSC predicted a growth of 69 percent in automobile traffic and a growth of over 140 percent in truck traffic.

NTPSC's medium-growth scenerio predicted highway capital needs of $900 billion (in 1975 dollars) for the quarter century between 1976 and 2000. This is an average of $36 billion per year. The projected net revenues available for capital investment are $364 billion, which is only $18 billion per year. This obviously falls far short of the projected needs. Inflation has greatly increased the gravity and financial needs of the situation.

The Federal-aid program which ARTBA recommends is one which calls for a significant increase in effort at both the state and local levels. We believe that this is both necessary and appropriate. We perceive a Federal responsibility to take a leadership role in the completion and preservation of the Interstate

System and to work cooperatively with the states in the development and preservation of other highway systems.

In this cooperative process, it is essential that all levels of government and all elements of the private section concentrate on developing cost-saving procedures which will insure that scarce highway resouces are invested wisely.

Mr. Chairman, this concludes the statement of the American Road & Transportation Builders Association. We appreciate this opportunity to present this testimony and look forward to working with this subcommittee in the development of responsible transportation legislation in the 1980's. Thank you. We will be glad to respond to any questions you or the other members of the Subcommittee on Transportation may have at this time.

CONGRESSIONAL QUESTIONNAIRE ON TRANSPORTATION FINANCING

For the purpose of simplicity, this questionnaire is designed to elicit short answers. It is recognized, however, that major policy questions cannot always be answered "yes" or "no." Extended comments are welcomed and appreciated.

Responses will be tabulated and a summary published. Please be assured that no individual respondents will be identified. The summary may categorize respondents by geographic region, urban-rural constituency, or political party.

1. Trust funds for transportation development have been established as a means of earmarking charges on transportation users for specific transportation development programs. Congress has established trust funds for highways, airports/airways and waterways programs.

(a) Do you support the principle that special taxes should be levied on transportation users to support Federally aided transportation programs?

YES ________ NO ________

(b) Should revenues from special taxes on transportation users be administered through trust funds?

YES ________ NO ________

COMMENTS ________________________________

2. Congress has authorized and appropriated funds for transportation programs for numerous purposes. In developing future transportation programs, which purposes should be given priority?

	High Priority	Low Priority	Not a Federal Responsibility
(a) Insuring adequate freight service	______	______	______
(b) Insuring adequate passenger service	______	______	______
(c) Improving transportation safety	______	______	______
(d) Insuring uniform levels of service throughout the U.S.	______	______	______
(e) Encouraging new and better transportation technologies	______	______	______
(f) Improving energy efficiency	______	______	______
(g) Sharing state & local governments' financial burden	______	______	______
(h) Meeting national defense transportation needs	______	______	______
(i) Fostering economic development	______	______	______
(j) Rescuing bankrupt transportation firms	______	______	______
(k) Developing better land-use patterns	______	______	______
(l) Other	______	______	______
______	______	______	______

COMMENTS ________________________________

3. In relationship to the overall Federal budget, is the present emphasis on transportation too much, too little or about right?

	Should spend more	Current level about OK	Should spend less
(a) Total transportation	______	______	______
(b) Highways	______	______	______
(c) Airports and airways	______	______	______
(d) Railroads	______	______	______
(e) Rail transit	______	______	______
(f) Buses and vans	______	______	______
(g) Waterways	______	______	______
(h) Pipelines	______	______	______

COMMENTS ________________________________

4. In terms of real dollars, the current cents-per-gallon tax on gasoline and diesel fuel produces less revenue every year.

(a) Should the Federal motor fuel tax be changed to a percentage tax on the wholesale price so that it will adjust automatically to price changes?

YES ________ NO ________

(b) Should the Federal motor fuel tax be increased and a portion thereof be rebated to the states for transportation purposes?

YES ________ NO ________

COMMENTS ________________________________

MAY/JUNE 1980

5. The Federal Airports & Airways Trust Fund has a current surplus of $3 billion, which is steadily growing. The principal source of revenue is the 8 percent Federal tax on airline passenger tickets. Which of the following courses of action do you prefer?

(a) ______ Increase authorizations for the Airport Development Assistance Program (ADAP) to the maximum level supportable by the Trust Fund in order to expedite needed airport improvements.
(b) ______ Divert larger amounts from the Trust Fund to support a larger part of airways maintenance and operations costs now borne by the general fund.
(c) ______ Use Trust Fund monies to retrofit noisy aircraft.
(d) ______ Reduce the rate of taxation on airline tickets.
(e) ______ Eliminate the Trust Fund, shifting the total burden to the general fund.
(f) ______ Let the surplus continue to accumulate, serving as a convenient source for general fund borrowing and as a contingency fund against future needs.
COMMENTS ______________________________

6. It is generally agreed that the public transportation program would benefit from the continuity and dependability of funding made possible with the trust fund mechanism. It is also generally recognized that a public transit trust fund based on user charges is not practicable. Which of the following statements most closely approximates your views?

(a) ______ General fund appropriations are the most practicable source of public transit funding by the Federal government.
(b) ______ Greater emphasis on public transit is being recommended as a way of conserving energy. Transit programs should be supported from special energy taxes (for example, the windfall profits tax.)
(c) ______ Special public transit taxes should be levied on indirect beneficiaries (for example, downtown businesses served by transit lines.)
(d) ______ Indirect beneficiaries should pay, but the burden should fall on the only readily identifiable class—urban auto drivers.
(e) ______ Transit systems are local. The Federal government has no responsibility to help finance them.
(f) ______ None of the above. I believe that ______________________________
____

7. It has been predicted that a 50 cents-per-gallon federal gasoline tax would immediately reduce consumption by about 10 percent. Most proponents of such a tax recommend that the revenues be rebated to the consumer in some fashion. Check as many of the following statements with which you agree.

(a) ______ A punitive gasoline tax would work great hardships on many people who must depend on the automobile. These people will suffer severely no matter what type of rebate system is provided.
(b) ______ A punitive gas tax is a good way to reduce consumption. By paying the money into the Social Security program, we can reduce the payroll withholding bite and make the punitive gas tax almost painless.
(c) ______ If a punitive gas tax is imposed, the revenues should be rebated back to state governments. Each state could then decide how to distribute the money to individuals.
(d) ______ If a punitive gas tax is imposed, the revenues should be used to reduce the Federal debt. This would benefit everyone.
COMMENTS ______________________________

8. Strong efforts are being made to improve the participation of minority business enterprise in transportation construction programs. Appropriate methods include (check one or more):

(a) ______ Mandating that a certain percentage of the dollar volume of any program be accomplished by minority business enterprise.
(b) ______ Requiring prime contractors to show that they are making a good faith effort to identify, solicit and utilize minority subcontractors.
(c) ______ Providing government loans and loan guarantees to bolster the financial strength of minority business firms.
(d) ______ Using Federal funds to underwrite training courses to help minority businessmen learn how to estimate, bid and construct projects.
(e) ______ Others ______________________________

9. Contractors say that some equal employment opportunity goals are unrealistic. For example, women qualified for certain skilled or supervisory jobs are in very short supply. They are in a position to pick and choose, generally declining employment far from home and/or away from urban areas. Should public officials be encouraged to waive numerical requirements in "hardship" situations?

YES ______ NO ______
COMMENTS ______________________________

10. The Davis Bacon Act required contractors on Federally aided projects to pay at least the prevailing wage rate for each construction skill. Many contractors and public officials say the prevailing wage determinations by the Department of Labor result in the steady inflation of wage rates. The proper remedy is (check one):

(a) ______ Repeal the Davis-Bacon Act.
(b) ______ Reform the processes by which the Davis-Bacon Act is administered.
(c) ______ Continue current law and procedures.
COMMENTS ______________________________

THE AMERICAN TRANSPORTATION BUILDER

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President and Secretary DANIEL J. HANSON, SR.

ARTBA
American Road & Transportation Builders Association

August 8, 1980

Honorable Neil Goldschmidt
Secretary
U. S. Department of Transportation
400 - 7th Street, S.W.
Washington, D.C. 20590

Dear Mr. Secretary:

In response to your earlier letter, I am pleased to send you the enclosed comments on the Federal Highway Administration's Discussion Paper #1. ARTBA is delighted to respond to your tentative 1981 highway legislative proposals.

The discussion paper (#1) is very well organized and provides a great deal of food for thought. It is very clear that the future of the national highway program is in serious trouble.

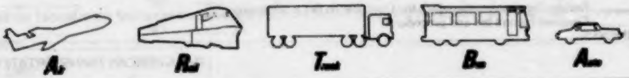
We look forward to working closely with you and your staff in seeking viable solutions to our mutual problems. We, in industry, are all committed to seeking and solving the many financial problems currently confronting our national transportation system.

Sincerely yours,

Dan Hanson

Daniel J. Hanson, Sr.
President

Enclosure



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ARTBA
American Road & Transportation Builders Association

August 8, 1980

COMMENTS ON FHWA DISCUSSION PAPER #1, JUNE 26, 1980

Submitted by: Daniel J. Hanson, Sr.
President
American Road & Transportation Builders
Association
525 School Street, S.W.
Washington, D.C. 20024

We very much appreciate this opportunity to submit comments on the program options for 1981 Federal-aid highway legislation. In particular, those proposals outlined in Discussion Paper #1 are very provocative and enlightening.

The information supplied in the discussion paper can be very helpful. In particular, the preliminary findings from the data collected for the 1980 report to Congress on highway conditions are especially useful in gauging the magnitude of the task before us. There is no doubt that we face an extremely difficult period in martialing our resouces in order to halt the continuing deterioration of the national highway system.

In the discussion which follows, we have outlined our perception of the Federal role in the future highway program. The role of the Highway Trust Fund, current views on energy conservation, future highway funding priorities and highway user tax policy are all important considerations.

A. Difficulties in defining the Federal role

Much of the material in the discussion paper (#1) suggests a need to redefine the Federal role in the highway program. The impelling urgency starts from a perception that there is little likelihood that enough Federal dollars will ever be available to expand the program enough to ensure that all program needs will be adequately addressed. The discussion paper suggests that it is important to arrive at a definition of the overall Federal interest. This obviously has a direct relationship to the expectable magnitude of the Federal investment in the total nationwide program.

This is obviously not a new idea. From the earliest years of the Federal-aid highway program, the development, preservation and maintenance of the highway system has been regarded as a joint responsibility of Federal, state and local governments. The original Federal-aid primary system was defined as a system of "connected main highways" not to exceed seven percent (7%) of the total highway mileage within any state. The importance of such a system to interstate, regional and statewide transportation is obviously apparent.

Over a period of many years, the perceived Federal interest has been expanded in several ways. This expansion, which is not fully described in the discussion paper, has taken some of the following directions:

1. Adding new categories. Federal assistance has been made available to secondary roads, urban arterials, certain off-system roads, bridges and a variety of special categories. Reducing the number of categories, as a general proposition, has widespread support. However, every special category has its constituency with the ability to provide very sound arguments for its continuation.

2. Expanding the definition of construction. The statutory definition of "construction" contained in Title 23 USC 101 has been greatly expanded over the years. This was done in an effort to make it clear that "all expenses incidental to the construction or reconstruction of a highway" are eligible for Federal assistance. These "incidental expenses" include such items as acquisition or construction of replacement housing, the installation of traffic control systems, and the provision of facilities for weighing trucks. The recent inclusion of "resurfacing, restoration and rehabilitation" (3R program) was a highly significant change. There should be a stronger Federal interest in most of the items added to the statutory definition of "construction."

3. Highway safety programs. Highway accidents probably constitute the No. 1 public health problem in the United States. A high proportion of the victims are young and the loss of productive life spans is enormous. Over the years, the Federal government has assumed an increasing interest in public health problems of all kinds. The safety of the motoring public has always been a broad objective of the Federal-aid highway program. In the earlier years of the program it was assumed that a "good" road, in terms of transportation efficiency, would also be a "safe" road. Generally speaking, this assumption is demonstrably correct. However, a number of

special programs and special requirements have been added in order to attack the increasing highway hazard problem in a more specific way. More of this type of activity needs to be included in future Federal highway programs, particularly a larger financial commitment.

4. Social benefit requirements. The Federal government has been the leader in attaching provisions to the highway program aimed at providing societal benefits. These benefits are totally unrelated to transportation efficiency or highway safety. They include various requirements for the preservation or enhancement of the natural environment, the control of outdoor advertising, special treatment for minority workers and minority business enterprise, special wage protection (Davis-Bacon) for construction workers, and "urban initiatives" to encourage the redevelopment of central cities. Taken together, these requirements have vastly increased the overall cost of Federal-aid highways.

B. The role of the Highway Trust Fund

The basic concept of the Highway Trust Fund should not be difficult to understand. Highway users, as a class, benefit from Federal-aid highways. They should, and over the last twenty-five years have been willing to, pay for the Federal-aid highway program.

There are indirect benefits, of course, which flow to all citizens. A strategic highway system is essential to the national defense. Efficient freight service benefits all consumers. The school system, police, fire and ambulance service all depend on roads, streets and highways. There is a substantial rationale, certainly, for assigning some of the costs of the highway program to general revenues.

ARTBA continues to believe that special taxes on highway users should provide the major share of the funds needed for the highway program. Some safeguards are needed, however, to protect and channel this investment in the proper direction. Two stipulations are extemely important:

1. The special taxes levied on highway users should not be used for activities which do not benefit highway users.

To espouse this principle, it is not necessary to make any value judgment as to the merit of the extraneous activity. For example, it may or may not be desirable to require that a certain percentage of cement finishers be female. It is of no particular benefit to the highway user. Therefore, ARTBA strongly believes that the cost of a program to train and require the employment of female cement finishers should not be charged to the Highway Trust Fund. The computation of the extra costs attributable to extraneous Federal regulations is admittedly a complex task. Nevertheless, we believe that a reasonably accurate estimate could be made.

2. The funds collected from special taxes on highway users should be made available for the highway program within a reasonable time frame.

We are in the current curious position of "running out of money" at a time when the Highway Trust Fund has a cash balance of more than $12 billion. Those of us who are familiar with the Federal funding process know about this very complicated situation. However, it is extremely difficult to explain to the lay public.

We fully recognize that the highway program is not an island unto itself and should function as a coordinate part of the government. It seems apparent, nevertheless, that some attention must be paid to the "trust" aspect of the Highway Trust Fund. One of the major objectives in the establishment of the Highway Trust Fund was to provide financial stability for the long-range highway program. At the present time, funding is being made available to the states on a precarious hand-to-mouth basis. In fact, the rules seem to change on a month-to-month basis. Under these circumstances, it is totally impossible for a state, of any other level of local government, to "plan ahead." What the highway program really needs from DOT/FHWA is some kind of assurance that the Federal-aid highway program will not continue to be treated as a "yo-yo", up and down program in future years.

C. Acceptable level of taxation

The discussion paper contains much valuable material on the magnitude of highway needs. It is apparent that the total highway system is deteriorating at an accelerating rate and that a much larger program is needed. In fact, according to DOT's own figures our highways are wearing out twice as fast as we can replace them.

The discussion paper makes the point that the Federal motor fuel tax of four (4) cents per gallon became effective on July 1, 1959, and was equivalent, at that time, to an 18.6 percent *ad valorem* tax on regular leaded gasoline. As of March 1, 1980, a tax of 19.8 cents per gallon would equal the effective *ad valorem* rate of July, 1959.

From the standpoint of highway needs, we believe that a Federal motor fuel tax in the magnitude of twenty (20) cents per gallon can be fully justified. The discussion paper points out that the political realities suggest that a tax of that magnitude probably cannot be enacted. However, we would like to go on record that the highway needs are still there and that in the past highway users have been willing to "pay as they drive."

As ARTBA has previously suggested, a higher motor fuel tax rate will be much more palatable if we can restore the public's confidence in the Highway Trust Fund. These highway user dollars should be used exclusively for the highway program. The funds collected from the states should be released to the states on a prompt basis.

We do not regard the defeat of the "gasoline conservation fee" proposed by President Carter as an indicator of Congressional sentiment toward an increased motor fuel tax. The "gasoline conservation fee" was equivalent to a tax of 10 cents per gallon. However, it was proposed for the sole purpose of reducing the demand for gasoline by increasing its price. This concept was indeed bad judgment at its best. In fact, gasoline consumption this year is running about 7.5 percent below the 1979 level and it is not surprising that Congress rejected this punitive tax. We believe that energy conservation goals can be reached without punishing highway users with unfair and inequitable taxes.

D. Energy conservation and cost allocation

The principle should be that everyone who operates a motor vehicle on the public highways should pay a fair share of the cost. It may be found to be in the public interest to subsidize some classes of users. These favored users might include, for example, those who reduce their personal consumption of petroleum products, operators of public transit vehicles, and low income people who must travel by automobile but cannot afford to buy gasoline. These highway users should not be subsidized at the expense of the highway fund. Other sources of public subsidy revenue must be found.

Our chief concern with the gasohol exemption is that gasohol is probably only the forerunner of a number of other alternative fuels and fuel systems. Volume production of electric cars appears to be imminent. Other fuels, such as hydrogen, are under serious consideration. Proponents of these alternative systems undoubtedly will seek Federal and state incentives. ARTBA does not object to such incentives. However, if these vehicles are to operate on the public highways, roads and streets, they should pay their fair share of highway costs. This is certainly an equitable way of handling the user charges.

One of the side effects of energy conservation is an increasing disparity in the size, weight and speed of vehicles in the traffic stream. Specifically, we are seeing more small automobiles, large vans, large trucks, transit vehicles and two-wheeled vehicles of all kinds. A highway safety problem is emerging which is likely to occasion very substantial modifications in highway design.

E. Selecting priorities for the program

The discussion paper presents a number of options for reducing the scope of the Federal-aid highway program in order to reduce future costs. By "modifying the Federal role," we can assign responsibility for certain program elements to state and local governments. In view of the needs cited in the discussion paper, we find it very difficult to recommend or support any reductions in the scope of the Federal-aid highway program.

It seems clear that a very high priority must be assigned to the reconstruction and rehabilitation of the older segments of the Interstate System. We do not agree that the Interstate System completion is an unattainable goal. New definitions which permit new items to be included in successive cost estimates should be prohibited. We do support, however, the proposed two-tier Interstate funding plan. This would shift the Interstate upgrading to the Interstate 3R category. We agree with this proposal providing, of course, that a greatly increased level of authorizations is made available in future years.

We have indicated in our discussion the impact of the energy conservation program. ARTBA believes that changes in the characteristics of vehicles using the highways will result in serious highway safety problems in future years. This will require, in many cases, new construction or at least the modification of existing road geometry. Safety problems, of course, are common to all roads, whether or not they are located on the Federal-aid system. The block grant approach has the advantage of providing funds which state and local governments can use where they are needed, without regard to the categorization of the roads. If the block grant approach is considered, care must be taken to ensure that the highway safety needs are not overlooked.

F. Highway research

Appendix I of the discussion paper outlines the concern that, under present policies, highway research efforts are diminishing. We strongly share this concern.

Highway construction is an energy-intensive industry. Recycling and the use of sulfur extenders are promising developments in asphalt paving technology. In addition, numerous other opportunities for cost savings remain to be explored and exploited.

We urge that research and development activity at both the Federal and state levels be expanded.

Highway Users Federation
FOR SAFETY AND MOBILITY

STATEMENT OF THE HIGHWAY USERS FEDERATION
BY
JOHN C. LANDEN, FEDERATION VICE CHAIRMAN AND GROUP VICE PRESIDENT,
TRAFFIC CONTROL, SAFETY SYSTEMS & ADVERTISING SERVICES,
3M COMPANY
BEFORE THE
TRANSPORTATION SUBCOMMITTEE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
SEPTEMBER 9, 1980
ON S. 2913

I am J. C. Landen, Group Vice President with 3M Company, and I am appearing today in behalf of the Highway Users Federation. My company is a member of the Federation and I am Vice Chairman of the organization.

The Federation is a broad-based national coalition of businesses, industries, industry associations and individuals who share a common concern about good, safe highway use. Our members are the producers and consumers of highway transportation services and products.

Mr. Chairman, we appreciate this opportunity to participate in the development of new Federal highway legislation.

1776 Massachusetts Avenue, N.W., Washington, D.C. 20036 (202) 857-1200

As the nation moves from a period of expansion and development of its highway system to one rehabilitation, there continues to be a need for a strong Federal presence. I emphasize the word "strong." Some current highway problems stem from the fact that highway mobility, which I don't hesitate to identify as our country's economic lifeline, has slipped among national priorities over the years. We firmly believe part of the Federal responsibility is to keep the highway transportation priority high and visible.

The job facing us is one of overcoming accelerating deterioration of an aging highway system. Too many of our roads are in bad shape. For example, between 60 and 80 percent of the pavement on the Primary System will have to be replaced in the 1980s; seven percent is rated in "poor" condition right now. The most up-to-date information on road conditions will come to you soon from the report on the status and condition of the nation's highways. Suffice it to say here, road conditions are not what they were or what they ought to be. The main problems stem not only from age, but from a combination of inflation and underinvestment, as well.

It's ironic that underinvestment in highways has been taking place at all levels of government despite the fact that most of the money for roadwork is protected by provisions of highway trust funding. There have been profound changes in the priority of highway transportation relative to other public expenditures. We're now paying the price for that diminished priority.

The highway user community has considerable faith in the Federal/state partnership that helped build the nation's key road systems in the first place. However, the basic Federal approach of concentrating on a limited number of systems of national importance, which we support, has been weakened in recent years by a proliferation of off-system expenditures. These jeopardize orderly, efficient administration and the basic systems concept.

So, too, does a growing tendency to preempt -- through administrative actions -- legislated provisions assuring that urban planning and transportation decisions will be local decisions. Long-standing legislation on urban transportation planning is sound. It should not be subject to informal interpretation and changes by the Administration unsupported at the local level.

Money, however, is clearly the key to timely rehabilitation of the Federal-aid highway system. Despite the Proposition 13 tax revolt of a few years ago, evidence at the state level is that governors and legislators with the support of highway users and others are willing to step up to their own highway needs. The appended table shows the recent pace of state gas tax increases.

Regarding the Federal program, we have testified previously that the Highway Trust Fund with its variety of user charges is a solid foundation on which to base Federal road funding. The Trust fund should be extended indefinitely to cover the major costs of the Federal-aid highway and safety programs. Long-term extension of the fund will permit more effective use of the revenues highway users pay, and avoid a large cash balance that serves no good transportation purpose. We fully support putting this money to work as soon as possible and not losing it to continuing inflation, which has seen the highway construction price index increase over 22 percent in the last year, alone.

We believe every effort should be made to stop artificially curbing highway expenditures when an adequate balance is on hand in the trust fund. Further we do not believe the trust fund reserve should be used to help make our national budget balance look better than it really is at the expense of safe, efficient highways. These factors have resulted in a trust fund "cash balance" that makes it difficult for highway users to accept the need for an increased Federal user tax.

The so-called cash balance should be cut to a reasonable, fiscally-sound level soon -- possibly no higher than $5 billion -- before adding new taxes. Our concern is that as long as there is a public perception of highway money not being used, the public is not likely to support any increase in user taxes.

It's equally difficult to make a case for increased highway user taxes while provisions remain on the books for diversion of road funds to other uses. The language of Title 23 clearly indicates that Congress didn't intend that urban road system funds become a permanent source of support for mass transit. Since 1978, "Assured Funding" has been provided for transit from sources other than the highway trust fund. We have supported and continue to support independent financing for transit, and now suggest that forthcoming legislation eliminate current provisions allowing scarce urban road funds to be used for other than road purposes.

It is clear, however, that neither use of the trust fund balance nor the ending of diversion of highway revenues will in themselves meet future road needs or even overcome current problems. Congress must develop a funding program that reflects growth and changes in the economy and population.

Senate Bill 2913 has suggested the use of a variable Federal tax pegged to fuel prices. A few states have moved in this direction; others have or are considering it. We are currently reviewing the pluses and minuses of this legislation on a state-by-state basis. So far, one thing is clear: a variable tax pegged to one commodity is no cure-all. It does not guarantee that adequate funds will be available; that they will be drawn from the right sources; or that they will be spent for the right things.

We recommend that any tax proposal considered by Congress be tested against these criteria:

1. Its ability to meet highway needs as determined by competent studies of future requirements.
2. Its fairness and equity among all classes of user tax payers.
3. The ease and economy of administering the tax.

4. The predictability of income and the opportunity for periodic legislative review.

It also is understood that in any user tax increase plan, the revenues would continue to be dedicated to highway uses.

Whatever funding arrangements are eventually worked out, it will continue to be necessary to concentrate Federal highway aid not only on a limited number of systems, but on top priority work within those systems. For example, completion of unopened Interstate sections is a top priority. The current completion schedule should be strictly adhered to, with exceptions only if construction cannot begin because of a lack of Federal funds. And we hope there will be no such exceptions.

We support separation of upgrading costs on the Interstate from gap-closing costs.

At the same time, we hope Congress will establish a permanent 4R program as Bill 2913 provides, to take care of the continuing rehabilitation and upgrading needs on the Interstate.

Clearly, provision of funds to complete the system and upgrade it are both necessary and this will, undoubtedly, require increases in Interstate authorizations for 1982 and beyond.

On another matter of importance we hope Congress will reemphasize what we believe was and is its intent: that highway safety be treated as an integral and important part of every Federally-aided road project . . . from the earliest stages of highway planning through actual construction.

Finally, regarding the urban program, we are concerned that there is a growing belief in some quarters that most urban street and highway problems can be dealt with by simple traffic management programs. These are useful and important, but they can't do the total job in metropolitan areas that are growing and changing. Substantial urban highway and street construction will be required to build-in the capacity and safety required by travel demands. We continue to be an urbanizing and suburbanizing country. Transportation systems management projects alone are simply inadequate to meet all future needs.

Mr. Chairman, the Highway Users Federation appreciates this opportunity to participate in the Committee's work. Your task ahead will be difficult and challenging. We earnestly hope in the end you will not draft legislation that settles for the status quo. The present safety and efficiency of our important roads simply is not good enough. America cannot improve its industrial productivity, cannot achieve economic progress, cannot serve its citizens with a second class highway system. We trust Congress will keep in mind the forward-looking highway program goals that have stimulated progress in the past . . . goals the public and highway users can understand and fully support.

Thank you.

STATE MOTOR FUEL TAX INCREASES: 1978-1980

1978

Michigan -
9 to 11¢

Iowa -
7 to 8.5¢

Utah -
7 to 9¢

West Virginia -
8.5 to 10.5¢

1979

Arkansas -
8.5 to 9.5¢

Georgia -
7.5¢

Iowa -
8.5 to 10¢

Montana -
8 to 9¢

Nebraska -
9.5 to 10.5¢

New Hampshire -
10 to 11¢

Pennsylvania -
9 to 11¢

South Carolina -
9 to 10¢

South Dakota -
8 to 9¢

Washington -
11 to 12¢

1980

Alabama -
7 to 11¢

Indiana -
8 to 8.5¢

Kentucky -
9¢ to 9%

Massachusetts -
8.5 to 10¢

Minnesota -
9 to 11¢

Nebraska -
10.5 to 13.3¢

New Mexico -
7 to 8¢

South Carolina -
10 to 11¢

South Dakota -
9 to 12¢

Virginia -
9 to 11¢

Wisconsin -
7 to 9¢

POTHOLES

PENNIES

and

POLITICS

Margin Numbers Identify Sources
Listed in Appendix

POTHOLES, PENNIES AND POLITICS

A Presentation to the
National Governors' Association
by
Peter G. Koltnow, President
Highway Users Federation
Denver, Colorado
August 4, 1980

All levels of government have a stake in road and street systems that serve the people safely and efficiently. Perhaps the most directly concerned are the 50 state governors and their administrations.

POTHOLES

The word "potholes" is generally descriptive of bad streets, but it doesn't go far enough in describing the growing problems of the U. S. road system . . . potentially the "Penn Central" of the next generation. The facts are:

- Roads Are Bad

1. Only a third of our major roads are rated "good" by the U. S. Department of Transportation

- Bridges Are Falling

2. One out of every five major bridges -- and just about half the minor ones -- are due for major repair . . . close to 200,000 bridges overall

- The Interstate Is Far From Done

3. Many older segments need complete reconstruction . . . back-log pavement replacements have tripled in four years

- Our Roads Aren't Nearly Safe Enough

4. State DOT's and highway departments currently face $3½ billion in liability claims involving inadequate roads

For the last decade, most of our highway and street systems have been going downhill.

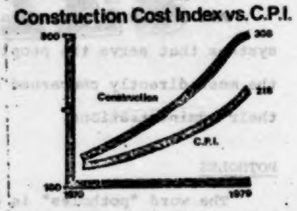
PENNIES

The roots of highway decay stem from a combination of:

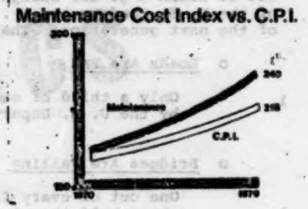
- Inflation -- in construction and maintenance
- Drop in fuel use
- Reduction in status of highways -- among state, local and federal government priorities

As a result, income and spending have dropped, while we face continued travel growth in the future.

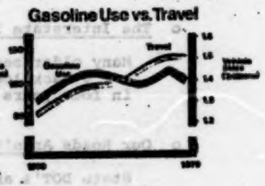
5. Inflation is higher for highway work than in other parts of the economy, generally.


Construction Cost Index vs. C.P.I.

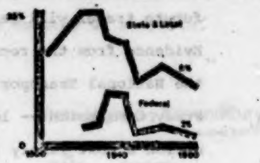
6.


Maintenance Cost Index vs. C.P.I.

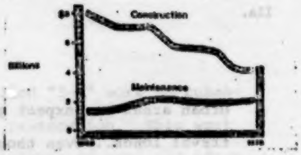
7. The long-standing parallel between travel, the demand for road services, and fuel use (a key item of income) has changed. Fuel-efficient vehicles and widespread conservation are the causes.


Gasoline Use vs. Travel

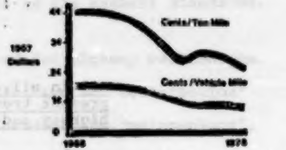
8. **Priorities have changed. Highways were once the largest program in the federal and in many state budgets. No longer. Road conditions are beginning to reflect years of relative political neglect.**


Proportion of Budgets for Highways

9. **The result: Spending for streets and roads has dropped in constant dollars...with capital investment taking the brunt of the cutback.**

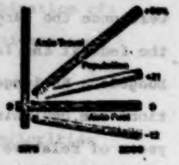

State Highway Expenditures
Constant 1967 $'s

10. **The problem is made worse by the fact that the demand for highway services has continued to grow. In effect, we are now spending only half as much relative to road use as we did 10 years ago.**

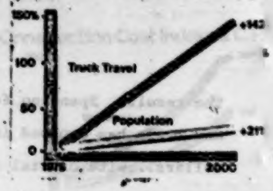

Highway Spending vs.Road Use

11. **So what? Some have argued that future travel will be limited. Evidence from the recent report of the National Transportation Policy Study Commission -- looking at the nation's most likely future conditions of population, economy and energy -- says otherwise. Road use will grow.**

Future Auto Travel



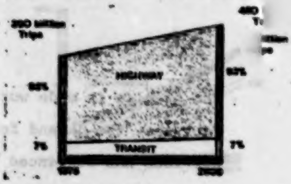
Future Truck Travel



11a.

12. **Urban areas can expect greater travel loads...even though transit will be carrying more, according to the Commission.**

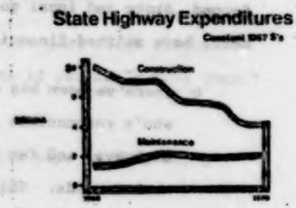
Future Urban Travel



All in all, a continuation of recent and present trends will give us even worse highway and street conditions.

POLITICS

All levels of government have taken a variety of steps to deal with highway problems.



First, they have stretched currently available resources as far as possible. As shown earlier, there has been a big shift
13. from construction to maintenance ...a natural step, since there is not much attraction in building a few new miles when you cannot take care of millions of old ones.

- o States have expanded so-called "3-R" work -- rehabilitation, resurfacing and restoration. This work usually is within existing rights of way, and often leaves expensive structures untouched. It is "cheap" construction -- more miles of upgrading for the dollar -- even if it is not to the highest standards.

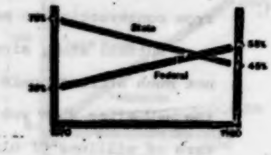
- o Federal funds cannot be used for highway maintenance. But there has been a redefinition of "construction" to include repairs once classified as "maintenance", so that today, many road repairs are eligible for federal funding.

- o Governments have worked to improve productivity through:
  - Better People -- better trained, more carefully selected and rewarded -- well enough to keep.
  - Better Management -- both of people and of streets and roads, themselves -- to squeeze maximum return out of available road space.

Better Technology -- which has dramatically reduced such things as earthmoving costs and improved the efficiency of urban travel.

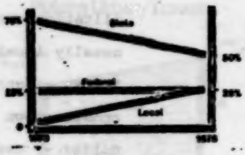
Second, State and local governments, and the federal government, have shifted financial burdens for road work.

Financial Shifts-Primary System



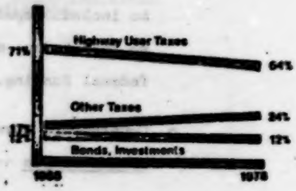
14. o **There've been big changes in who's responsible for major highways, and for farm-to-market roads. Shifting responsibility doesn't make more dollars, but does alter priorities.**

Financial Shifts-Secondary System



15.

Highway Revenue Shifts



16. o **Governments also have shifted more of this road burden to non-highway users. Contributions from general funds have increased in recognition of the value of highway transportation to the general public.**

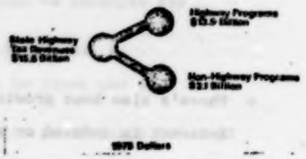
A final way to shift the cost of improved transportation is, unfortunately, to let roads and streets deteriorate. Citizens pay for this through increased operating costs and diminished services, rather than through taxes.

As the old saying goes, "You pay for good roads whether you have them or not. But you pay more if you don't have them."

A final means to meet the financial gaps is by getting more money.

17. o States can plug the leaks through which current highway revenues are diverted to unrelated uses. Over $2 billion goes this way.

Stop Tax Diversion


State Highway Tax Revenues $15.6 Billion
Highway Programs $13.5 Billion
Non-Highway Programs $2.1 Billion
1979 Dollars

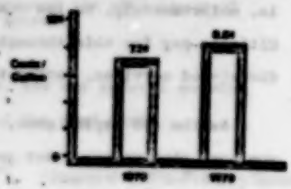
18. o Many states are being resourceful in uncovering new tax sources for road work.

NEW TAX SOURCES

Severance Tax	Tobacco Tax
Alabama	Massachusetts
Arkansas	Mississippi
Kentucky	
Montana	
North Dakota	
Oklahoma	
Wyoming	

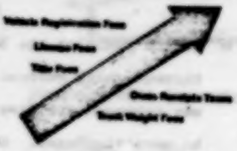
19. o Dozens of states have raised highway user taxes in the last few years. One of the most common increase has been motor fuel taxes — the average cents per gallon has been rising steadily.

Average State Gas Tax



20. o Most other user taxes have been adjusted as well.

Other Highway User Taxes-Up!



21. o There's also been growing interest in indexed or variable fuel taxes — pegging taxes to a state's road program or to a standard cost index, or to the price of fuel. Most states have elected to use the more traditional cents-per-gallon taxes, but several have linked fuel taxes to some rising index.

INDEXED FUEL TAXES

1977	Washington
1979	New Mexico
1980	Georgia Indiana Kentucky Massachusetts Nebraska

In the final analysis, improving the financial base requires several things:

First - a broad-based coalition of support groups representing the organized public interest.

Second - widespread public understanding that better roads and streets are essential to many public goals, such as:

- Greater Safety
- Increased Transportation Efficiency
- Healthy Development - Jobs
- Tourism - Enjoyment of State Attractions

Third - a solid financing proposal -- one that gives satisfactory answers to questions the public and highway support coalitions will ask:

- Are highway needs clearly defined and measured?
- Will the financial plan be adequate for future needs?
- Has the public been involved?
- Is the proposal fair to those who will have to pay?
- Will it provide stable, predictable funding?
- Will the plan be simple and efficient to administer?
- Are there provisions for periodic legislative review?

Experience shows that favorable answers to these key questions ensure good highway financing proposals -- and solid public support.

Our society and our economy are bound together by transportation -- and highways are the heart of our transport systems.

Time after time, the nation has built for the future and stepped-up to the highway modernization job that tomorrow calls for.

The time has come again.

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6. COST TRENDS-HIGHWAY MAINTENANCE AND OPERATIONS, Federal Highway Administration, U.S. Department of Transportation; and SURVEY OF CURRENT BUSINESS, U.S. Department of Commerce

7. HIGHWAY STATISTICS, Table VM-1, Federal Highway Administration, U.S. Department of Transportation; and BASIC PETROLEUM DATA BOOK, American Petroleum Institute

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10. WHAT'S HAPPENING TO STATE HIGHWAY FINANCE: A STATUS REPORT, Highway Users Federation for Safety and Mobility, July 1979

11&
11a. NATIONAL TRANSPORTATION POLICIES THROUGH THE YEAR 2000, National Transportation Policy Study Commission, Final Report, June 1979, Table 33, Figure 5 and Figure 15

Sources

12. NATIONAL TRANSPORTATION POLICIES THROUGH THE YEAR 2000, National Transportation Policy Study Commission, Final Report, June 1979, Appendix Table 27 and Page 154

13. Same as 9

14. 1981 FEDERAL HIGHWAY LEGISLATION: PROGRAM AND REVENUE OPTIONS, DISCUSSION PAPER #1, June 1980, Federal Highway Administration, U.S. Department of Transportation - The Primary Program, Investment

15. 1981 FEDERAL HIGHWAY LEGISLATION: PROGRAM AND REVENUE OPTIONS, DISCUSSION PAPER #1, June 1980, Federal Highway Administration, U. S. Department of Transportation - The Secondary Program, Investment

16. HIGHWAY STATISTICS, Federal Highway Administration, U.S. Department of Transportation, Table HF-10, Total Receipts for Highways, All Units of Government

17. HIGHWAY STATISTICS, 1978, Table DF, Federal Highway Administration, U.S. Department of Transportation

18. Highway Users Federation Compilation, July 1980

19. BASIC PETROLEUM DATA BOOK, American Petroleum Institute

20. HIGHWAY STATISTICS, Federal Highway Administration, U. S. Department of Transportation

21. Highway Users Federation Compilation, July 1980

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
William C. Hennessy, Commissioner

1220 Washington Avenue, State Campus, Albany, New York 12232

SEP 1 8 1980

Senator Lloyd Bentsen, Chairman
Sub-Committee on Transportation
Committee on Environment and Public Works
240 Russell Senate Office Building
Washington, D.C. 20510

Attention: Mr. Pat McDonough

Dear Senator Bentsen:

We have followed with interest the testimony recently presented before your Sub-Committee relating to the "Federal-Aid Highway and Highway Revenue Act of 1980" (S. 2913). We would like to add the attached statement of the New York State Department of Transportation to be included in the hearing record.

We have come a long way in deregulating several major Federal transportation programs--aviation, trucking and railroads. We believe it is now time to deregulate the Federal Highway Program. That is, to release the funding for highway construction from the myriad Federal controls and regulations which unduly restrict and frustrate us--and allow the states and local jurisdictions to use our limited available highway funds in accordance with our own needs and priorities.

Cosmetic tinkering with the present Federal-aid Highway Program will not allow us to adequately react to rapidly changing priorities and needs for transportation in the decade ahead. A radical overhaul of the entire Federal-aid system is required which will allow the Federal agencies to concentrate their efforts on the high order systems with true national significance and allow the states and local jurisdictions to implement the needed improvements to the remainder of our 3.8 million miles of highway with a minimum of interference and direct intervention of the Federal Highway Administration.

The attached testimony outlines a workable proposal designed to achieve this objective. We hope that our ideas will be considered when redrafting this important legislation.

Sincerely,

W. C. HENNESSY
Commissioner

Attachment

cc: The Honorable Jacob K. Javits
The Honorable Daniel Patrick Moynihan
The Honorable Henry J. Nowak

HIGHWAY DEREGULATION

A PROPOSAL TO RESTRUCTURE

THE FEDERAL HIGHWAY PROGRAM

A STATEMENT BY

WILLIAM C. HENNESSY, COMMISSIONER

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

TO THE

TRANSPORTATION SUB-COMMITTEE

SENATE COMMITTEE ON ENVIRONMENT & PUBLIC WORKS

ON

THE FEDERAL-AID HIGHWAY AND HIGHWAY REVENUE ACT OF 1980
(S. 2913)

SEPTEMBER 15, 1980

"HIGHWAY DEREGULATION"
A PROPOSAL TO RESTRUCTURE
THE FEDERAL HIGHWAY PROGRAM

Significant changes have occured in the federal role in transportation over the past decade.

Notable among those changes are regulatory reform legislation pertaining to aviation,rail, freight and trucking.

It's time now, we believe, to "deregulate" our highways: specifically to release much of the federal funding from the myriad controls which unduly restrict and frustrate.

Funds apportioned to the states by federal law cover the Interstate system, Interstate Resurfacing, Consolidated Primary, Rural Secondary, Urban System, Highway Bridge Replacement and Rehabilitation, Rail-Highway Crossing, Hazard Elimination, Safer Off-System Roads, Pavement Marking.

And more: Appalachia Development, Appalachia Local Access Roads, Discretionary Priority Primary, Economic Growth Center, Emergency Relief, Bicycle Program, Bikeways/Walkways, Control of Outdoor Advertising, Control of Junkyards, Landscaping.

And more: TOPICS (Traffic Operations Program To Increase Capacity and Safety), Fringe and Corridor Parking Facilities, Public Transportation, Traffic Control Signalization, Carpool/Vanpool, Indian Reservation Roads and Bridges, Public Lands Highways, National Parkways and Park Roads, Integrated Motorist Information System.

That sounds like a generous, comprehensive federal highway program but actually, each element is subject to funding limitations and other requirements which make for an incredible amount of record-keeping and stacks of justification memos, without any recognition of state and local priorities.

This proliferation of funding categories implies that the federal government has greater insight into each state's needs than do the states and their localities themselves.

The fact is that the federal government is too far removed to realistically assess these needs and to impose funding limitations in each category. It is past time, therefore, to correct the inequities and imbalances created by their funding approach by adopting a new policy to streamline the priority-decision process, specifically by relegating much of that responsibility to the states. And, the states in turn delegating to local government.

* * *

The next session of Congress will have to consider major highway legislation. Drastic changes to the federal-aid highway program may be considered. The following discussion presents a rational view of the future federal role in the construction and preservation of the national highway system—and a federal program which reflects that role.

Two objectives are uppermost:

- Provide state and local highway agencies with a fair share of future national apportionments;
- Provide maximum flexibility with respect to the use of apportioned funds to undertake projects in accordance with state and local standards and priorities.

LIMITS OF FEDERAL INVOLVEMENT

We would propose to limit the direct federal interest in our 3.8 million mile national system of highways, roads and streets to the 42,500 miles of the Interstate System which handles 22 percent of all highway travel and most travel of an interstate nature.

We would propose the abandonment of all other federal systems and categories of highways (Primary, Rural Secondary, FAUS, Economic Development, and etc.) and make provision for federal assistance for improvements to all other public highways in the form of Federal Transportation Block Grants to the states, for their own use and for distribution to large urban areas with populations exceeding 200,000, and the small urban and rural areas.

At one time, the impetus provided by the federal dollar may have been necessary to "get the farmer out of the mud" and to provide a national system of highways for the general welfare and common defense. With the development of capable state transportation departments and more professional municipal organizations, the need for the federal reins is greatly diminished; instead, federal controls have become very costly, overly restrictive and time-consuming. Federal apportionments in many minute categories with differing participation ratios exert too great an influence on state and local priorities. Arbitrary federal standards applied to local systems nationwide tend to result in a wasteful expenditure of capital funds. Extensive documentation of state and local projects simply to satisfy several layers of federal auditors are burdensome and unproductive. The federal controls should be limited to the Interstate System, where there is a clear national concern and responsibility.

It is assumed that existing federal mandates will remain in force on all federally-aided projects relative to affirmative action, wage rates and environmental protection, regardless of changes made to the highway legislation. However, by converting the non-Interstate aspects of the highway program to block grants, we would expect that the imposition of federal highway design standards and regulations would be discontinued.

FUNDING

It is obvious that the revenues derived from the Highway Trust Fund have been seriously eroded by:

a) inflation, which reduces the value of the revenues collected; and

b) fuel conservation efforts, which reduce the amounts collected.

To support an adequate program, we would propose to retain the Trust Fund and provide an immediate 20 percent increase in revenues deposited in the fund, with all future revenues indexed to the cost-of-living or some other convenient factor used to discount inflationary effects.

In addition, by limiting the direct involvement of FHWA staff to Interstate projects, significant reductions in the FHWA administrative budgets could be made with the savings distributed for highway construction or improvements. With a staff of 5,000 and an administrative budget of close to $200 million, FHWA's annual apportionment from the Trust Fund is greater than all but 13 of the largest states.

PROGRAM SIZE

By increasing trust fund revenues 20 percent and indexing to an inflation-sensitive factor we could ensure sufficient revenues to sustain a $12 billion annual level of obligation in 1980 dollars. The dollar size of the allowable program would automatically increase with inflation. We would allocate:

- $4 billion annually for a combined program for completion of the Interstate System and an expanded Interstate 3-R program;
- $3 billion for Bridge Replacement and Rehabilitation;
- $3 billion to the states in block grants;
- $1.5 billion to be allocated to the states for use in the large urban areas with populations exceeding 200,000; and
- $.5 billion to be allocated to the states for use by local jurisdictions not located in urbanized areas of more than 200,000.

These levels would be adjusted annually to reflect increases in revenues to the Trust Fund.

COMBINED INTERSTATE CONSTRUCTION & 4-R PROGRAM

Nine states have either completed their interstate systems or are very close to doing so. Under the one-half percent minimum provision of the law, these states continue to receive over $17 million annually for completion of the Interstate System. Provision has been made in the 1978 Surface Transportation Act that states which completed their Interstate construction may use these funds for resurfacing, restoration and rehabilitation of the completed Interstate System or even for Primary, Secondary or Urban System improvements.

As the System advances to completion, an increasing number of states will be put in a position where their minimum apportionment is in excess of their construction requirements and will avail themselves of the flexibility to transfer funds from Interstate construction to 3-R purposes. To simplify the transfer, we would propose that the Interstate Construction and 3-R Programs be combined into a single program. We would abandon the biennial Interstate Cost Estimate as a basis for apportionment and substitute a single apportionment based upon each state's relative share of population and designated Interstate mileage.

Under the combined program, the states would have the option of utilizing their annual apportionment to complete construction of the system or for an expanded 3-R Program which would include reconstruction of deteriorated portions of the system—a 4-R Program. This would give the states the flexibility to implement local priorities concerning the relative value of completion versus preservation of the already built system. To provide an incentive for completion we would propose that construction projects be 100 percent federally funded, while the matching ratio for the 4-R projects be set at 90/10. We would eliminate any deadlines for starting or completion and let the Interstate be completed in due course without artificial time tables.

It is estimated that the 1981 Estimate of Cost to Complete the Interstate System will show a $50.8 billion federal share of the cost—an increase over the 1979 estimate despite the investment of billions over the two-year period. Inflation is increasing costs faster than we can complete the system. To meet the "completion" goal FHWA has proposed to restrict the definition of completion to include only:

(1) The completion of gaps in the system; and

(2) Planned stage construction projects.

This would reduce the cost to complete to $34.2 million.

Further, it is estimated that an additional $7.6 billion in Interstate projects will be withdrawn by various areas and traded for substitute highways and transit projects. If these projects continue to be funded from the general fund, the cost of completion is reduced to $26.6 billion.

Ten percent of the Interstate System (over 4,000 miles) is in immediate need of resurfacing. In addition, about $16.6 billion in projects eliminated from the Interstate Cost Estimate in the proposal above would have to be financed from an expanded Interstate 3-R Program—enlarged to a 4-R Program to include reconstruction. Including the $25.7 billion which has been identified as the need for regular 3-R projects through 1990, a total of $42.3 billion is needed.

This proposal would provide $4 billion annually for Interstate construction and 4-R. Initially a large percentage of the funds would be aimed at completion of the system. However, as each state nears completion of its designated Interstate mileage, more and more of the total will be concentrated upon the reconstruction and preservation of the existing system.

BRIDGE REPLACEMENT & REHABILITATION

The current estimate to replace or rehabilitate all deficient bridges in the country is $33 billion, based on the 1979 Bridge Replacement Report.

	Bridges Eligible for Replacement of Rehabilitation	Estimate Replacement Cost in Billions	Bridges Eligible for Rehabilitation only	Estimated Rehabilitation Cost in Billions	Total Cost in Billions
Federal-aid	22,800	$11.1	28,900	$ 7.2	$18.3
Off-system (projection)	76,500	11.1	38,500	3.8	14.9
	99,300	$22.2	67,400	$11.0	$33.2

At the rate of current annual funding level for the program ($1.3 billion) it would require over 25 years to take care of present needs. Many of these structures are in urgent need of replacement or major rehabilitation and cannot be put off. Further, each year we can expect increasing numbers of additional bridges to deteriorate to a point where they become eligible for rehabilitation.

It is obvious that the increased attention must be given to the "bridge problem", and we would propose a $3 billion annual program.

The current law requires that between 15 and 35 percent of the amount apportioned to each state be used for off-system bridges. The above tabulation shows that about 45 percent of the problem occurs on bridges which are not on any Federal-aid System. Our proposal is to abolish the Federal-aid System and allow the states to determine the priorities for the program. However, in the event these systems are retained, at least 50 percent of each state's apportionment should be allowed for off-system improvements.

It is proposed to continue to distribute the funds for the program based upon the annual estimates of need prepared by FHWA. However, in view of the major off-system needs, we would expand the needs estimate to include the off-system bridges. The program should be converted to a block grant basis with administration based upon certification and post-audit by the State to ascertain proper use of the funds. For uniformity with other block grant programs being proposed, the Federal share of the program cost would be 75 percent. As a block grant program, Federal project by project approvals would no longer be required and each state would be required to establish appropriate design criteria and standards in accordance with local needs that exist in each state.

STATE TRANSPORTATION BLOCK GRANTS

To replace the numerous narrow categorical highway programs which the state participates in (e.g., Primary, Rural Secondary, Safety programs, etc.) we would substitute a system of block grants to the state highway agencies. Such annual grants would be apportioned to each state on the basis of their relative share of population and public highway mileage. We would propose that the program be administered on the basis of certification and post-audit by the state to ascertain that the funding was used for eligible projects. In place of a matching ratio on individual projects, we would propose a Federal/State matching ratio of 75/25 for the program.

LARGE URBAN AREA TRANSPORTATION BLOCK GRANTS

We would eliminate the FAUS program and substitute a $1.5 billion program of block grants to the Governor of each state, with attributable funds earmarked for transportation purposes in the urbanized areas of more than 200,000 population. These funds would be allocated on the basis of their relative share of population of all larger urban areas. They could be used to finance a wide range of highway and/or transit capital improvements in accordance with an approved Transportation Improvement Plan. The non-Federal matching share for this program would be maintained at the uniform 25 percent.

SMALL URBAN AND RURAL AREA TRANSPORTATION BLOCK GRANTS

Close to $6 billion per year in local taxes are being spent by Town and County governments for capital improvements to local highways. A large percentage of this amount is used to keep the 2.3 million miles of rural County and Town roads in useful condition. Despite this massive investment the condition of the local highways systems continues to deteriorate, with some of our most pressing problems related to preservation of these systems.

We would propose that $500 million be apportioned to the Governor of each state for pass-through to local units of government with responsibility for highways outside of urbanized areas of 200,000 or more population for use in construction, reconstruction and preservation of highways. The apportionment to each state would be on the basis of relative shares of population and public highway mileage in the small urban and rural areas of each state. The pass-through to local jurisdictions would be in accordance with a fair and equitable formula developed by each Governor. Again, we would propose a 25 percent non-Federal matching requirement.

ADEQUATE, CONTINUING INVESTMENT NEEDED

More dependable funding is needed for all modes of transporation but this paper is concerned principally with the highway mode.

New York has been a pace-setter in giving attention to other than highway needs, particularly public transportation, and a reversal of the neglect in the maintenance of the mass transportation systems is readily apparent.

But highways remain the dominant transportation mode and this paper is aimed toward development of a program to ensure the adequate, continuing investment necessary to maintain the high standards of service we have come to expect from our highway systems.

Certainly the energy-efficiency of motor vehicles must be continually improved but the automobile is the most versatile method of transportation—accounting for 88 percent of all passenger miles—and will remain the centerpiece of the national transportation system.

The additional funding I am proposing in this paper, and removal of restrictive categorical funding, will enable us at the state and local levels to keep our highway systems functional—and safe.

WRITTEN STATEMENT OF

F. B. KLABOE

DIRECTOR

OREGON DEPARTMENT OF TRANSPORTATION

FOR THE

SUBCOMMITTEE ON TRANSPORTATION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

SEPTEMBER 17, 1980

REGARDING

FEDERAL-AID HIGHWAY AND HIGHWAY

REVENUE ACT OF 1980

S. 2913

The Oregon Department of Transportation would like to commend this Committee for beginning the process for creating new highway legislation. We are hopeful the resulting legislation will be responsive to the problems and changing needs of the Federal-aid Highway Program, and the changing needs of the individual states.

In today's economic and transportation climate, it appears certain that highway needs will consistently be greater than the funds made available to meet these needs. The incentive and flexibility for states to address their most critical needs must be built into any new highway legislation. We must also move away from the cost-to-complete approach, such as used in the Interstate Cost Estimate, to avoid the gamesmanship of building state programs to unnecessarily high theoretical standards in an effort to obtain a higher share of available funds. The incentives to have flexible, more cost effective programs and projects must be present if we expect to adequately address the Nation's highway needs.

COMPLETION OF INTERSTATE SYSTEM

Closing critical gaps in the Nation's Interstate Highway System and completing that system are high priority objectives. Given the escalating cost of construction and the downward trend in revenue from the gasoline tax, it becomes apparent that massive infusions of new tax money would be required to complete the Interstate System beyond the extent necessary to close critical gaps and to open the facility to traffic service. This is referred to as "initial construction" in the Instruction Manual for the 1981 Estimate for Cost to Complete the Interstate System, page I-5, and does not include upgrading work on existing sections, stage construction completion, or construction of added design features beyond the initial construction. Obviously, some states would have more to complete than others, but as a Nation, we need to complete the system and then get on with the task of addressing future highway needs, preservation, and on-going maintenance of the total highway system.

It is our belief that the Interstate System cannot be completed on the basis of including everything in the 1981 estimate because of the great imbalance that would be created in using vast amounts of money for one highway system in such a short span of time. Other highway programs would suffer and, quite possibly, many states would be unable to match the federal funds involved. Additionally, such large expenditures in a short span of time would possibly add significant inflationary pressure to the national economy.

In order to close existing gaps, and complete critical sections, present authorization levels need to be raised for the Interstate. For withdrawn segments, funding appropriations from the federal General Fund have not been adequate to meet the needs of those requesting funds. The present level of federal funding for withdrawn segments needs to be increased if we are to complete the planned substitution projects in the time interval established by current law.

It is recommended that the Interstate System be completed as soon as practicable by closing critical gaps and finishing only critical sections. Funds for withdrawn Interstate projects are recommended to come from the General Fund and be appropriated at a rate which enables the completion of those projects as soon as practicable.

ROLE OF GOVERNMENT

Federal, state and local governments work together in a partnership in administering and implementing highway programs. Through the proliferation of new highway programs and ever-expanding requirements, the balance of federalism has boldly shifted toward more federal control and less state/local control over programs and decisions. It is doubtful that many states foster the need for such close control, particularly in local and off-system highway programs, and it is doubtful that any great gains or efficiencies are being realized because of it.

It is strongly recommended to reduce highway categories to only those few that truly serve a national purpose. The Interstate and Primary Systems are national in character, Secondary highways and bridge replacement begin to cause debate about their national purpose, and special categories, such as Public Lands Highways, Off-System Roads, and the like are limited in national scope. Oregon would like to see as few categories as possible and certainly no more than the six categories endorsed by AASHTO.

Federal program involvement and federal requirements should be scaled down, and categories should be scaled down. There is no benefit from heavy federal involvement in Secondary highway programs, Urban programs, Off-System programs, and most of the other categories. The purpose of reducing categories is to help streamline the process, make it more efficient, give states more discretion over state decisions, and to make government more responsive to those it is intended to serve. Hopefully, noncritical categories can be eliminated and not just reorganized under several major categories. It is recommended that the federal role be reduced to only critical national priority programs and the funding for other highway activities be accomplished through a pass-back of revenues to the states, or a block grant program with few categorical constraints attached.

PRESERVE INTEGRITY OF HIGHWAY SYSTEM

S. 2913 contains substantial increased authorizations for 3-R work and adds reconstruction to create the 4-R program. This seems an appropriate response to the national interest in maintaining the investment in the Interstate System. Oregon has two concerns in this regard: first, the added emphasis on Interstate 4-R should not come at the expense of the remainder of the highway system; and second, the 4-R should not be allowed to evolve into a program that perpetuates the construction of the Interstate System and perpetuates the funding problems of programs based on a cost-of-complete scheme.

Recent statements by USDOT indicate the Nation's Interstate System is deteriorating and the Primary System is relatively stable and in good condition overall. ("1981 Highway Legislation: Program and Review Options", pages 1 and 2.) Additionally, it is pointed out that the states have chosen to use virtually none of their primary funds or state funds to perform Interstate 3-R work. Oregon is experiencing deterioration on the Interstate System, but we are also experiencing deterioration on all our systems, each of which was built before the Interstate. The task at hand is to preserve and maintain the highway systems built and in place, give priority to the Interstate, but certainly not neglect the remainder of the highways we have. There is some "stability" to the condition of the Oregon highway system; unfortunately, it is stable at a low-rated condition. Roughly, only 25% of our highway mileage is rated good or very good, based on recent surveys. Statements that the Primary System is in good condition are not substantiated in Oregon's case.

Oregon strongly endorses the efforts to adequately address preservation and maintenance of the existing highway facilities, reconstruction of facilities where warranted, and equitable distribution of funds based on the usage a facility receives. A method to apportion 4-R funds based upon the number of lane miles, vehicle miles of travel and number of heavy loads traveling upon the road is recommended. Fund distribution based totally on cost to complete for 4-R would be unsatisfactory.

Currently, there is a truck weight and size study, and a cost allocation study, being performed at the federal level. Pending the outcome of those studies, it is recommended to review the uniform truck weight and size standards. The increase in heavy trucks upon the highways is remarkable and costs associated with that traffic should be equitably recovered. Also, the impact of any size changes in truck standards must be evaluated in terms of how those changes might impact containerized freight that moves by not only truck but other modes. If truck freight container size becomes incompatible with other modes, the number of heavy loads upon the highways might increase considerably and would cause more highway deterioration than anticipated.

Perhaps the greatest concern in Oregon is that once the Interstate construction program is complete the 4-R will grow and become the "new" federal program replete with new regulations, requirements, and controls. There is serious question that heavy federal involvement is required in a 3-R or 4-R program since it deals with a facility that is already in place and was originally constructed to federal standards. We do not feel there is a need for federal involvement in 3-R and 4-R programs to the extent of endless rules, regulations, controls, and required approvals at all phases of work. We do not want to see the 3-R or 4-R program evolve into a complex program such as the Interstate construction program became. The present Primary System program is administered in a more trusting, efficient, and less bureaucratic fashion. It is hoped all federal highway programs of the future will become less burdensome to states through a reduction of federal control at all phases of work and, in this way, states will again have the ability to adequately address the problems of preserving the integrity of the entire highway system.

HIGHWAY TRUST FUND

Given increasing costs to construct and maintain the highway system, it becomes quite clear that higher authorization levels must be obtained, or current programs must undergo significant changes, in order to make the shrinking funds go far enough. It is recommended to extend and strengthen the highway trust fund in order to meet the highway transportation needs of the Nation, states, and local governments. User fees, through fuel taxes and excise taxes, have been the cornerstone of the trust fund and should continue to be in the future. S. 2913 proposes an ad valorem tax on wholesale gasoline in an effort to combat the effects of inflation and decreasing gasoline consumption. The Bill contains a 4% tax, but it is felt that 4% would be substantially low in trying to generate adequate levels of revenue to enable completion of the Interstate, plus enhance other highway efforts to combat deterioration and rising costs. Oregon recommends a minimum 8% ad valorem tax on the wholesale price of gasoline. With a 4-cent per gallon tax, the proportion of federal gasoline tax to the price of gasoline has declined from 12% to when gasoline was 33 cents per gallon to 4% when gasoline is $1.00 per gallon. The present 4-cent per gallon gasoline tax is not sufficient to adequately meet the highway needs of the Nation. We feel that the 8% ad valorem tax would go a long way toward meeting the present highway needs.

This concludes Oregon's testimony to S. 2913 and we thank you for the opportunity to express our thoughts and desires concerning future highway legislation.

COMMISSION
A. SAM WALDROP, CHAIRMAN
DEWITT C. GREER
RAY A. BARNHART

STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
AUSTIN, TEXAS 78701

ENGINEER-DIRECTOR
M. G. GOODE

September 11, 1980

IN REPLY REFER TO
FILE NO.

Honorable Lloyd Bentsen, U. S. Senator
Chairman of the Transportation Subcommittee
of the Committee on Environment and
Public Works
Dirksen Senate Office Building, Suite 4202
Washington, D. C. 20510

Attention: Mr. Lee Fuller

Dear Senator Bentsen:

At the invitation of Mr. Lee Fuller of your office, we are taking this opportunity to offer some of our views and comments regarding proposed Federal-aid Highway Program legislation on which you are now holding hearings.

State Highway Programs, nationwide, have faced a financial crunch caused by a decline in highway revenues combined with escalating costs. In Texas, as an example, from 1971-1976, "user" revenues rose by 34%, and cost of highway construction rose 114%. Similarly, from 1976-1980, "user" revenues rose by 26%, and cost of highway construction rose by 117.5%.

Texas, like most states, has relied upon "user" revenues for support of the basic state share of highway financing. Beginning in 1979, as a result of state legislation enacted in 1977, the Texas Department of Highways and Public Transportation will be guaranteed $750 Million of state funds annually for financing the Texas Highway System. This amount will be adjusted each year by the level of inflation for the combined cost of highway operations, maintenance, and construction. The difference between the dedicated "user" revenues and the inflation-adjusted guaranteed amount will be supplied from the general funds of the State.

While state funds are protected from the ravages of inflation, federal dollars continue to erode in value. Obviously, federal "user" revenues are suffering the same decline as state "user" revenues. The Congress has attempted to offset some of the declining buying power of federal dollars by changing the matching ratio of federal to state dollars on non-interstate programs from 50-50 in the early 1970's to 75-25 in 1978. The ratio changes were woefully inadequate to keep pace with the spiraling inflation.

Thus, we believe it is appropriate for the Congress to consider revising the emphasis of the Federal-aid Highway Program and study more equitable funding to meet the needs of the times.

The Department believes the Interstate Highway Program should be completed at the earliest possible time under present law with additional funding as necessary. In addition, we believe the Federal Highway Trust Fund should be continued to provide basic support for highway and related programs using categorical cost reimbursements, but with increased funding for Interstate and 4R Programs. To best utilize the funding and accelerate completion and upgrading of the entire highway system, we think the categories should be reduced to Interstate, Primary, Secondary, Urban and Bridge Replacement. Safety should be a matter of fact in all construction projects and any special safety work would fall under the funding of the appropriate category.

The Interstate and Primary Highway Systems should remain as separate and distinct from other systems with no substantial changes to the present Federal-aid Highway System.

To accomplish these basic aims, the Federal Highway Trust Fund should be continued indefinitely with revenues to the fund dedicated to highway and related public transportation facilities. The Trust Fund will require additional sources of revenue and increased receipts from existing sources to keep abreast of inflation.

We further suggest that more equitable apportionment formulas will be required even with increased revenues for the completion and upgrading of the Federal-aid Highway Systems. The apportionment formulas should be studied, with consideration given to including new factors such as highway needs related to service levels, population, geographic areas and the relative contribution by the individual states to the Federal Highway Trust Fund. We think these factors are important because as population shifts are increasing highway needs in a number of states, the ratio of return of federal funds to these states compared to their contributions is declining. We do not advocate the elimination of the donor-recipient concept, but we do believe that equity needs to be established between states with increasing needs and those with declining needs resulting from population changes. Further, most of the "population growth" states are more dependent upon highway transportation than states losing population.

We find that S. 2913 generally is in accord with our previously mentioned views, especially the need to continue the Federal Highway Trust Fund supplemented with increased revenues. We will need to further evaluate whether an ad valorem tax on gasoline or changing the tax from four cents per gallon to a four percent tax is an adequate approach. But, the bill recognizes that increased revenues are required and that in some way those revenues must be sensitive to inflationary effects.

We appreciate the opportunity to provide you with our comments at this time. We will continue to monitor progress of the proposed legislation and comment further as circumstances warrant.

On behalf of the Highway and Public Transportation Commission and the Department,

I want you to know of our deep appreciation for your continued interest in and support of the Federal-State Partnership in the highway program.

Sincerely yours,

M. G. Goode

M. G. Goode
Engineer-Director

cc: Mr. Francis B. Francois, Executive Director
American Association of State Highway
and Transportation Officials

State Highway and Public Transportation
Commission

Office of the Mayor

Richard L. Berkley, Mayor

City of Kansas City, Missouri
Heart of America

29th Floor, City Hall
Kansas City, Missouri 64106
816 274-2595

August 29, 1980

The Honorable Robert T. Stafford
Ranking Minority Member
Subcommittee on Transportation
Committee on Environment and Public Works
5129 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Stafford:

I am advised that on September 9 the Subcommittee on Transportation of the Senate Committee on Environment and Public Works will be holding a hearing on the future of Federal Highway Programs. I would like to take this opportunity to state Kansas City's position on future federal highway legislation.

We are generally concerned that new highway legislation include at least a procedure to complete the "gaps" for those portions of the interstate highway system which are not locally desired to be withdrawn from the system. We have three such "gaps" in the Kansas City area that we are very concerned with having completed. Other than this general comment, my remarks are confined to the Federal Aid Urban System as this is the one which most directly affects the ability of Kansas City to produce street improvements.

There is a critical need to expand the city's ability to construct arterial street improvements under Federal Aid Urban System financing. Continuation of the current program status quo is the minimum level acceptable. We strongly endorse the concept of providing assistance for urban areas over 200,000 population directly to the cities as a means of overcoming delays resulting from state involvement. It also allows the selection of necessary improvements by the city within federal guidelines.

The most pressing need for the Federal Aid Program is to continue and, if possible, to increase the allocation of funds to those urban areas over 200,000 population, where needs are so critical. Such additional funds could be provided directly by increasing the amounts of "pass through" funds using the same manner of distribution as the present system. A second improvement would be the addition of a mandatory requirement for each state's allocation of FAU funds requiring a redistribution of available funds at least every two years on an "as needed" basis if the original allocations had not been used by that time. In this way, no substantial amount of urban funds would be accumulated over a several year period awaiting possible allocation to some urban areas when others may not only be using their own urban allocations but be in serious need of and able to use additional allocations. It is also imperative that restrictions in the use of urban funds be removed or modified. Then these funds will be able to be used promptly in those urban areas of each state where the needs are recognized and where appropriate steps can be taken by the local jurisdiction to use the allocated funds without delay.

I would appreciate your taking Kansas City's position into consideration at the time of the hearing.

Sincerely,

Richard L. Berkley

RLB:cf
cc: Mayor Henry L. Marsh, Richmond, Virginia
Len Simon, U.S. Conference of Mayors

AMERICAN AUTOMOBILE ASSOCIATION
8111 GATEHOUSE ROAD, FALLS CHURCH, VIRGINIA 22047 ● 703 AAA-6000 ● CABLE: AMERAUTO ● TELEX 89-9485

September 22, 1980

Senator Lloyd Bentsen
Chairman
Subcommittee on Transportation
Environment and Public Works Committee
4204 Dirksen Office Building
Washington, D.C. 20510

Dear Senator Bentsen:

In response to your letter of August 21 regarding S. 2913, we are attaching our comments and request that they be made part of the hearing record. You will note that the commentary is directed at the general approach to highway programming and highway financing which the AAA feels to be desirable during the decade of the 1980's.

Many of the recommendations will require several years of lead time, so we believe that any legislation prepared for 1980 or 1981 should be developed in such a way as to set the stage for the eventual program direction outlined in our commentary.

Sincerely,

Jerry C. Connors
Managing Director
Government Affairs

JCC:ksf
att

STATEMENT OF AMERICAN AUTOMOBILE ASSOCIATION

TO

TRANSPORTATION SUBCOMMITTEE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

RE: S. 2913 AND FUTURE HIGHWAY PROGRAM

SEPTEMBER 19, 1980

The American Automobile Association appreciates this opportunity to comment on S. 2913 and major issues which it believes should be addressed in the development of federal highway legislation in the decade of the 1980's.

OVERVIEW

The decade of the 1980's will see more concentration on the preservation of our investment in highways and bridges and much less emphasis on the construction of new facilities on new rights-of-way. This new direction has important implications for legislation relating to highway program direction and highway funding measures.

Equally important in the context of program direction is the forecast that Highway Trust Funds will stabilize at approximately their present level, or experience a gradual decline. The cost of highway improvements has escalated at an alarming rate during the last several years and is expected to continue to increase at a rate in excess of the consumer price index.

Adding to these complications has been the practice of maintaining large balances in the Highway Trust Fund for the dual purpose of balancing the general budget and providing liquidating cash for eventual payment of claims submitted for authorized programs. These balances have grown to amounts substantially in excess of normal cash flow requirements for ongoing programs.

We have already seen evidence that these circumstances are gradually leading to a crisis situation in our transportation network. The Interstate System is not yet completed, yet many sections are already in need of major reconstruction. With each passing year more of the system reaches or exceeds its 20-year design life. Much of the existing system was placed in service during the decade of the 1960's. Subsequent to that time most of the states have increased truck weights and a surge in economic activity significantly increased the frequency of heavy trucks in the traffic stream. Since the 20-year design life is heavily dependent upon both the magnitude of heavy axle loads and the frequency of such loads, much of the existing Interstate System will reach the limits of its design life well ahead of forecast. The decade of the 1980's will bear the brunt of the rehabilitation and reconstruction efforts necessary to preserve investments in this system.

Concurrent with accelerated deterioration of the Interstate System, we are faced with the need to rebuild an aging Primary System and over 50,000 bridges on federal-aid systems classified as structurally deficient or functionally obsolete.

The seriousness and complexities of the highway transportation problems to be addressed in this decade make it incumbent upon the next Congress to carefully appraise the role of the federal government in highway programs and in funding mechanisms to support such programs.

HIGHWAY PROGRAM DIRECTION

The Federal Role

Of fundamental importance in the consideration of any new highway program for the 1980's is agreement on the appropriate role of the federal government in the formulation, implementation and financing of the program.

Federal involvement should be confined to road programs of national significance in rural and urban areas. State government should give major emphasis to roads of state-wide significance, while counties and cities should be responsible for the remaining roads and streets. Acceptance of this principle that governments at different levels -- municipal, county, state and federal — all have their appropriate responsibilities would do much to alleviate the difficulties encountered by this program in the decade of the 1970's.

Of parallel importance to agreement on the role of the federal government is agreement on the goals and objectives of federal involvement. AAA agrees with the traditional goals of the federal-aid highway program, that is, to provide a national system of highways to facilitate commerce and communication; provide for the national defense; improve highway safety, and otherwise provide for the safe, efficient and economical transportation of people and goods. We do not believe that these fundamental principles should be warped or twisted in the pursuit of other "national goals" proclaimed by administrative or legislative spokesmen without the benefit of public discussion or legislative enactment. Agreement on appropriate goals and objectives would do much to eliminate the constantly increasing delays attributed to federal red tape and conflicting interpretations of laws and regulations.

The Interstate Program

Top priority must be given to closing essential Interstate gaps not now open to traffic and to accelerated completion of those segments which are open to traffic but which have not been completed to full design standards because of stage construction. Segments of the system which will not meet the deadlines for completion of environmental impact statements (1983) or start of construction (1986), as provided in existing law, should not be eliminated but should revert to primary system status with the appropriate matching ratio at time of obligation rather than the current 90/10 Interstate match.

The next most important objective is the preservation of the capital investment already made in the Interstate System. Limited provision is already made for this through the 3-R program. The 3-R program provides funds for resurfacing, rehabilitation and restoration. A fourth cetegory, reconstruction, should be added and funds should be increased substantially. Over time, the new 4-R program should be provided proportionately more funds than provided for Interstate gap closures.

Program needs for 4-R work should not be included in new cost estimates of Interstate completion but should be provided separately on the same biennial basis. States which have completed their Interstate and are now receiving one-half of one percent funds, and states receiving such funds in the future, should be required to spend such funds for Interstate 4-R work. New formulas should give emphasis to traffic volume, intensity of land development and all other factors which result in increased highway costs, so as to assure the most equitable apportionment possible of available funds.

Primary System

The next most important system, in terms of federal interest, is the Primary System. This is our oldest network of highways and much of it is over 50 years of age. It is our major highway communication network and serves about 50 percent of all travel. It is second in importance, strategically and economically, only to the Interstate System. Funds for this system will have to be increased. While it is now reported to be in reasonably good condition, the age of the system and the increasing proportion of capital investment in reconstruction, rehabilitation and resurfacing necessary to insure continued service life dictates increased federal resources during the decade.

Secondary System

This is the second oldest system, having been established in 1944. Basically it was established as a farm-to-market system and its chief purpose was to provide an all-weather road network for the movement of agricultural products. Over time, hundreds of thousands of miles were put on this system, principally to qualify for the then applicable 50/50 federal match. It became a convenient mechanism for local governments to meet one-half the cost of local road needs with federal dollars.

In 1976 the Secondary System was realigned so that only roads that functionally served as major rural collector routes were eligible for inclusion on the system. This functional reclassification removed several hundred thousand miles of roads and thousands of bridges from the Secondary System and eventually resulted in the Congress providing "off-system" funds to assist counties and local governments in assuming financial obligations inherent in this turnback. While these funds were originally provided from general funds, the Federal-Aid Highway Act of 1978 mandated that at least 15 percent of the states' apportionment for bridge replacement and rehabilitation be used for "off-system" bridges. This made the Federal Highway Trust Fund responsible for funding "off-system" bridges. Thus, congressional action in 1976 to divest the federal government from responsibility for local roads and bridges was partially offset by congressional approval of the "off-system" bridge provisions of the 1978 Act.

The Secondary System is reported to be in the poorest condition of all federal-aid systems. However, it mainly serves an intracounty rather than intrastate or national purpose. Consideration should be given to eventually turning back most if not all mileage to local control. Some federal assistance to enable local governments to assume responsibility for this road network should be provided through continuation of federal-aid apportionments at their present levels for several more years and gradual substitution of General Revenue Sharing and Community Development Block Grant funds after about 1985. In the interim, AAA believes that no Federal Highway Trust Funds should be provided for "off-system" roads or bridges. There isn't enough money in the Trust Fund to provide for all "on-system" work that is required.

Urban System

This is the newest federal-aid system. Like the Secondary System, it is of primary importance to local travel and should not warrant a high level of federal investment. The slow rate of obligation of existing Urban System funds and the fact that some communities have used such funds for other transportation modes raises serious questions as to the continuing need for federal involvement in such a system.

Because different levels of government have their own appropriate levels of responsibility for road programs, it is time to turn back the Urban System to local control and responsibility. Like the Secondary System, this should be phased out over several years with Revenue Sharing Funds and Community Block Grant Funds provided to the extent the Congress believes necessary to fulfill other social or economic goals related to this turnback.

Bridges

Bridges are like fuses or circuit breakers in an electrical system. If either are deficient, ability of the system to perform its designed function is impaired or destroyed. The latest report on bridge conditions on federal-aid highways indicates that over 56,000, out of a total of 254,500 bridges have been classified as structurally deficient or functionally obsolete. Thus, almost one bridge in four impairs the overall efficiency of the road systems of which they are a part. Replacement and rehabilitation costs for these bridges are estimated at $18 billion. Failure to correct these problems will have serious safety and economic ramifications.

The bridge program is now funded at about $1 billion per year but provisions of the 1978 Highway Act mandated that at least 15 percent of the funds had to be obligated for "off-system" bridges. Clearly the bridge program is going to have to be substantially increased if we are going to correct these problems in the decade of the 1980's. It is equally clear that any dispersion of available funds to "off-system" bridges will reduce the capacity to repair bridges on our federal-aid systems. AAA recommends repeal of provisions of existing law mandating use of Highway Trust Funds for repair of "off-system" bridges and establishment of a funding level which will accomplish the repair or replacement of all deficient bridges on federal-aid systems by the end of the decade.

Truck Sizes and Weights

In view of the substantial investments which all highway users will be called upon to make in the next decade, it is essential that construction practices accommodate safely and efficiently the demands that will be placed on the newly built and rebuilt segments. To accomplish this it is necessary for highway builders to know the extent of these demands as they relate to size and weights of vehicles forecasted to use these facilities.

The design life of highway pavement is heavily influenced by the number and weight of axles passing over it. Estimates are made of the forecasted number of 18,000 lb. equivalent axle loadings expected over a fixed time frame. Pavement and bridges are then constructed to accommodate the expected loadings. Two important variables must be considered: (1) the axle loadings and (2) the frequency of these loadings in the traffic stream. Variation in either affects the rate at which the pavement wears out. Variations in both compound the problems. Increase in either weights or frequency shorten the design life. Increases in both weights and frequency can have catastrophic effects in accelerating obsolescence, with a concurrent requirement to invest heavily in capital improvements to save the road.

Little can be done about the frequency of heavy axle loads for that is primarily a function of economic activity. The more robust the economy, the more tonnage of goods to be moved. However, the other variable, permitted maximum axle loads, can be controlled by legislation and strict enforcement.

Failure to establish maximum size and weight limits applicable to all federal-aid highways, and elimination of all so-called grandfather clauses, has led to a continuing escalation of weights on non-Interstate roads, and subsequent congressional approval for increased weights on the Interstate. According to the Federal Highway Administration, the Interstate System experienced significant deterioration between 1975 and 1978. In 1975 some four percent of Interstate pavement needed immediate rehabilitation or reconstruction. Just three years later the percentage needing such work jumped to ten percent. It is estimated that some 2,000 Interstate miles will reach their design life limit each year.

AAA is convinced that the action of the Congress in raising the permitted axle and gross weight limits, effective in 1975, and other actions by the states in liberalizing such weights through issuance of special permits for reducible loads have played a major role in shortening the calendar life expectancy of our highway plant. Roads which the public was led to believe would last 20 calendar years or more are reaching their design life in 15 years or less. Some extreme examples have reached design life in less than 10 years. Clearly this problem must be addressed in any new highway legislation.

It is essential that agreement be reached on a maximum set of sizes and weights applicable to all federal-aid systems. Such systems must be built to accommodate these weights and adequate measures must be undertaken to prevent illegal overloads. Provision must be made for the occasional movement of indivisible loads in excess of the agreed upon size and/or maximum gross weight limits but all such movements should be carefully controlled as to axle loadings, route and time of movement. Grandfather clauses should be eliminated, as should special permits for divisible loads.

Only through such stringent measures can the credibility of efforts to manage this huge investment of public funds be reinstated and public confidence restored.

HIGHWAY FINANCE

The Highway Trust Fund

Of utmost importance in any discussion of new financing for an ongoing highway program is the credibility of the financing mechanism. The Highway Trust Fund had a high level of credibility in the early years of the program. However, with each passing year the Congress has saddled the fund with increasing liabilities for categorical programs which individual members believed deserved more state attention. The Trust Fund has been used both as a club to force states to adopt programs and as an enticement to change program priorities. Various administrations have impounded trust funds and more recently the Congress itself has placed obligational ceilings on the program substantially below the level of investment which the Trust Fund would be capable of supporting. The net effect of these actions has been to build up a significant balance in the fund which can then be used to balance deficiencies in other federal accounts in the general budget. The Trust Fund balance is now about $12 billion. These actions have jeopardized the state-federal partnership role and have brought about unnecessary delays and uncertainties in the completion of highway projects. In an inflationary era such delays have added a significant layer of increased costs to the program.

It is important to eliminate or significantly reduce the number of categorical grants in the highway program and to take necessary steps to reduce the balance in the Trust Fund to an amount sufficient to accommodate normal cash flow requirements under prudent financial management practices. Such action must be taken prior to any call for increased revenues. Without such action, the credibility of the need for such revenues will be seriously questioned.

AAA recommends that the Trust Fund be extended to the year 2000. Such a long-term extension would make it unnecessary to hold large balances pending Trust Fund termination. It would preserve the option of elimination or further extension at a later date.

With the removal of the need for larger balances, about $3 billion per year could be drawn down for a period of three years (total of $9 billion) to offset the costs of increased program authorizations while the Congress considers both the findings of the cost allocation study and the U.S. Treasury study on user taxation. The three-year draw down would also minimize the effect on the federal budget. The remaining $3 billion of the existing balance should be retained to provide adequate cash flow at the end of the fiscal year and cushion the effects of any unforeseen emergency situations.

Reducing the balance will reduce investment income. By the end of the third year taxing mechanisms should be in place to provide some $3.5 to $4 billion additional revenue over and above the approximately $7.5 billion, exclusive of interest, currently received by the Trust Fund.

Tax Proposals

Of considerable importance to the development of any user-financed package of taxes is an appreciation of the intermix of various tax sources and how they are applied to achieve the most reasonable tax equity between users of various classes of vehicles.

There is general agreement that major highway efforts in this decade will be devoted to rehabilitation and reconstruction of existing facilities, rather than to construction of facilities on new rights-of-way. The nature of the work to be accomplished argues for a very careful appraisal of the types of taxes selected; the relative amounts of increases, if any, in the tax rates; the user groups primarily responsible for the improvements needed; and which user groups will bear the brunt of tax increases.

Most of the current proposals for increasing tax revenues to the Trust Fund have centered on the fuel tax. S. 2913 would change the cents-per-gallon fuel tax to an ad valorem tax, so that revenues would increase as the price of fuel increases, without any changes in the tax rate.

It is important to recognize the fact that any fuel tax is paid primarily by the users of light vehicles which cause the least wear and tear on the highway. According to our estimates, owners and operators of heavy vehicles (those over 26,000 lbs. GVW) pay ten percent or less of total fuel taxes going into the Trust Fund. So the simple solution presented by increasing fuel tax rates places some 90 percent of the tax burden on light vehicle owners. The State of Tennessee has recently reported that heavy axle loadings were responsible for 96.8 percent of highway wear and tear, as expressed in 18,000 lb. axle load equivalency factors, whereas passenger vehicles and pickup trucks were responsible for only 3.2 percent. Any taxing mechanism which relies primarily on the fuel tax does not take this proportionately greater tax responsibility of heavier trucks into account.

AAA suggests that any new taxing program include some recognition of the effects of heavy axles and miles traveled. We would suggest consideration of a federal weight-distance tax for all vehicles over 26,000 lbs. registered gross weight. This could be achieved by adjusting the current vehicle use tax so as to more precisely reflect actual operating gross weights and adding a mileage factor based on reports already filed by industry for other tax purposes. Mileage rates should be scaled according to weight, similar to the system now used by the State of Oregon. Cost allocation study findings should provide guidance in the appropriate rates for different weight classes.

Additional Sources of Tax Revenue

Recent legislation promoting synfuels development provided a long-term exemption from the federal excise tax on motor fuels to those using gasohol. This development will have an increasing debilitating effect on Trust Fund revenue as more gasohol reaches the market. Also, certain areas of the country -- those where more gasohol production and marketing are more readily available -- will benefit more than others. Inequity will be further exacerbated if revenue shortages brought about by such exemptions are made up by increasing the motor fuel tax rates for those who are not exempted. An additional inequity may be present if those states which benefit from such exemptions are also states which, under normal circumstances, would be receiving more federal money in apportionments than their citizens pay in Trust Fund taxes. It is too early to tell if this is likely to be the case but there is probable cause to warrant further analysis.

Since the purpose of the fuel tax exemption was to further other national goals related to our defense posture, energy independence, etc., it seems only equitable that the Trust Fund be reimbursed for these losses experienced in the pursuit of such goals. AAA therefore recommends that the Trust Fund be reimbursed from proceeds of the windfall profits tax or other general tax revenues.

We would be happy to meet with members of the Subcommittee and staff to discuss these concepts in more detail.

ACEC File #700.14
x #710

american
consulting engineers
council

1015 FIFTEENTH STREET, N.W., WASHINGTON, D.C. 20005 ☐ (202) 347-7474

September 22, 1980

The Honorable Lloyd Bentsen
Chairman, Subcommittee on Transportation
Senate Committee on
Environment and Public Works
4204 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Bentsen:

The American Consulting Engineers Council is pleased to submit its statement on S. 2913. It represents the general views of ACEC highway engineers as prepared from input by our Transportation Committee.

Respectfully,

Edward Bajer
Legislative Counsel

EB:tr
Enclosure

President EVERETT S. THOMPSON Grand Rapids, Michigan • *Senior Vice President* WILLIAM A. HERRMANN St. Louis, Missouri
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STATEMENT OF
THE AMERICAN CONSULTING ENGINEERS COUNCIL
REGARDING
S. 2913
TO THE
SUBCOMMITTEE ON TRANSPORTATION
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UUNITED STATES SENATE

September 22, 1980
Washington, D.C.

STATEMENT OF
THE AMERICAN CONSULTING ENGINEERS COUNCIL

The American Consulting Engineers Council (ACEC) is pleased to be able to present its comments on S. 2913, introduced by Senator Lloyd Bentsen, and the future of highway development. ACEC is a federation of 49 state organizations with over 3,800 member firms. A large portion of our membership is involved in the design phase of highways and bridges; consequently, our expertise lies at the beginning of a project, where the opportunities for cost-effectiveness are the greatest. We support Senator Bentsen's bill and appreciate his efforts and concern in this area. Our highway design engineers have many unique cost-saving ideas that could be introduced in the design stage of highway construction and maintenance and we request the opportunity to appear personally before the Subcommittee to present them the next time hearings are held.

Highway Trust Fund

Our major concern is with the viability of the Highway Trust Fund. Effective long-range planning requires a dedicated source of funds. If the Highway Trust Fund is allowed to continue to deteriorate, the greatest transportation system in the world will do likewise. The current four-cents-a-gallon tax has faced 13 years of high inflation. We support the conversion, as S. 2913 would do, of the four-cents-a-gallon tax to four-percent. This is a position formally adopted by the ACEC Board of Directors. The four-cents tax in 1967 should be ten cents today in order for it to have maintained its purchasing power. In addition, the exemption from the gas tax for the production of gasohol has contributed to a sizable reduction in tax receipts dedicated to the Highway Trust Fund. When this exemption was granted, the Windfall Profit conferees promised early action to address the underlying problems facing the trust fund. To date, nothing has been done. We reiterate the need to confront this problem soon and shore up the trust fund so our highway system is not subject to economic peaks and valleys and political considerations. Successes in auto fuel efficienty and increased gasoline conservation, ironically, have also led to depletion of the Highway Trust Fund. Meanwhile, highways and bridges continue to deteriorate without regard to where funding is coming from.

Inflation

Since 1967, inflation has taken its toll (no pun intended) on our nation's highways. S. 2913 will help, but stops short of complete recovery. Without suggesting specific funding levels, we would like to see the following·

- completion of essential gaps in the interstate system;
- restoration and maintenance of the interstate system in good condition;
- assuring that user charges are adequate to support the program; and
- increased funding for the bridge rehabilitation program.

We are not unaware that increased federal spending is one of the major causes of inflation, but it is not the only one.

The failure to adequately fund and maintain our nation's highways in the past has led to a situation where the correcting of deficiencies must be done, even though they are quite expensive. Missed opportunities have caught up with us and the situation worsens the longer the necessary aid is not forthcoming. It is not a prudent philosophy to curtail spending in the name of inflation when such a curtailment leads to even higher inflation in the future. Efforts must be resisted for temporary fixes that end up costing more in the long run.

Bridge Program

In addition to supporting increased funding for the bridge program, the ACEC Transportation Committee passed a resolution to oppose increases in allowable truck weights and sizes until a thorough bridge appraisal program is done with an engineering and economic study of long-range consequences. It is our contention that because of the weight of loaded trucks, the trucking industry, although claiming to be heavily taxed, is not paying its proportionate share of pavement and bridge costs. The impact of loaded trucks on bridges and highways is a major consideration in designing them. At the rate at which our bridges are deteriorating, this program must continue indefinitely because the needs are accruing faster than funds are made available. Nearly 200,000 bridges in this country are in need of repair.

Davis-Bacon and Service Contract Acts

Repealing the Davis-Bacon Act and the Service Contract Act are two ways to reduce hidden costs in the highway program. Davis-Bacon sets minimum wage rates for construction workers and the Service Contract Act sets the same for service employees. On the Service Contract Act, a recent regulation issued by the Department of Labor greatly expands the number of covered employees, including now many employees involved in highway work that were not previously covered. The Congressional Budget Office, the General Accounting Office, many private study organizations and leading economists (including Walter Heller, chief economic advisor to President John Kennedy) have all recognized the highly inflationary impact of the Davis-Bacon Act. Wage rates, whether for construction employees or service employees, should be an issue to be negotiated between two parties, labor and management, and not three, with the federal government being the final arbiter. When the government sets a prevailing wage rate on a construction project, using 30 percent of similar wage earners in the area to determine that rate, an artificial situation is created with 70 percent of the wage rates in the area not taken into consideration Using 30 percent of the workers could hardly be called prevailing.

Conclusion

As stated in the Federal Highway Administration's "Discussion Paper No. 1", 1981 is a crucial year in terms of highway finance and revenue policy. The trust fund expires in 1984;

states are hurting financially even more than the federal government; and inflation is cutting into the buying power of the highway dollar.

It is important to institute an allocation process, in continuing the federal-aid highway program as a user-financed program, that is fair to all concerned and provides adequate funding at all program levels. The costs of these programs should be allocated among the various users as equitably as possible and the tax structure should be developed to determine the types of taxes and rates needed to match revenues with the various classes of users proportionately.

THE
ASPHALT
INSTITUTE
EXECUTIVE OFFICES AND RESEARCH CENTER
Asphalt Institute Building | College Park, Maryland 20740 | Telephone: 301-ASPHALT (277-4258)

September 22, 1980

The Honorable Lloyd Bentsen
United States Senate
240 Russell Senate Office Bldg.
Washington, D.C. 20510

Re: S. 2913 - Before the Subcommittee on Transportation, Committee on Environment and Public Works, United States Senate

Sir:

The Asphalt Institute appreciates very much the opportunity to submit the attached statement with regard to S. 2913, the "Federal Aid Highway and Highway Revenue Act of 1980."

The Asphalt Institute strongly recommends that federal aid to highways be tied to those functional classifications which meet a national need and perform a national service; i.e., rural and urban arterials, and the major rural collectors. We believe that everything possible must be done to provide substantially increased funding to the end that the performance of the highway system is maintained at least at current levels.

We congratulate you for your efforts and look forward to participating in further discussions relating to the highway system.

Very truly yours,

J. R. Coupal, Jr.
President

JRC:nw
Attachment

ENGINEERING · RESEARCH · EDUCATION

THE ASPHALT INSTITUTE'S

Statement Submitted To The Committee On Environment And Public Works With Regard To Senate Bill 2913

Gentlemen:

The Asphalt Institute appreciates very much the opportunity to submit comments on S.2913, the "Federal Aid Highway and Highway Revenue Act of 1980."

The Asphalt Institute congratulates Senator Bentsen and his colleagues for providing a forum for an early discussion of the scope, shape, and magnitude of highway legislation which will affect highway transportation for the next decade.

The Asphalt Institute is pleased with the increases in funding for some of the categories for highway construction, but feels that the proposed level of funding is still completely inadequate.

The cost of highway construction, as measured by the Federal Highway Administration's Construction Price Index, has just about doubled in the last seven years, and is up 250% over the base year of 1967. In 1973 highway authorizations totaled $5.44 billion. To purchase the same amount of highway construction in 1980, would cost $12.03 billion. And, it should be noted that even in 1973 reconstruction was not at a level that could maintain the performance characteristics of the highway system.

The 1980 Highway Needs Study has not yet been published, but when it is, we believe it will show that the performance level of the total highway system is decreasing at a significant rate. We believe that everything possible must be done to provide substantially increased funding to the end that the performance of the highway system is maintained at least at current levels.

The Federal Highway Administration in 1972 provided for a functional classification system for all highways in the United States. This system categorized every highway segment by the function that it performed.

The Asphalt Institute strongly recommends that federal aid to highways be tied to those functional classifications which meet a national need and perform a national service; i.e., rural and urban arterials, and the major rural collectors.

While The Asphalt Institute believes that additional highway revenues are needed, it also recognizes the difficulty in imposing additional taxes at a time when the trust fund has a balance of nearly $12 billion. The Institute recommends that new highway revenues be introduced into the system gradually while the balance in the trust fund be gradually reduced. If such a transition period is utilized, it would be possible to increase highway allocations by $4-$6 billion a year (which we believe is the minimum that will meet highway needs) while still not having any seriously adverse impact in the form of new taxes. A viable highway system in good condition is absolutely vital to the social and economic well-being of this nation, and to the national defense. It costs far more to ride on bad roads than it does to ride on good roads, and we believe this nation cannot afford to allow the continued deterioration of this great national resource.

ASSOCIATION OF
AMERICAN RAILROADS
AMERICAN RAILROADS BUILDING · WASHINGTON, D. C. 20036

WILLIAM H. DEMPSEY
President and Chief Executive Officer

September 24, 1980

Senator Lloyd Bentsen, Chairman
Transportation Subcommittee
Committee on Environment and Public Works
United States Senate
Russell Office Building - Room 240
Washington, D. C. 20590

Dear Senator Bentsen:

This refers to your letter of August 21, 1980, to Mr. Charles L. Amos of the Association of American Railroads inviting comments with respect to hearings being conducted on S. 2913, The Federal-Aid Highway and Highway Revenue Act of 1980.

I appreciate the opportunity to provide comments on this important subject. Enclosed is my testimony.

Sincerely,

WHDempsey

TESTIMONY

OF

WILLIAM H. DEMPSEY

PRESIDENT, ASSOCIATION OF AMERICAN RAILROADS

ON

S. 2913

U. S. SENATE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

SUBCOMMITTEE ON TRANSPORTATION

SEPTEMBER 23, 1980

We appreciate this opportunity to comment on S. 2913, the Federal-Aid Highway and Highway Revenue Act of 1980. The Association of American Railroads (AAR), with headquarters in Washington, D.C., represents railroads which operate 92 percent of all line-haul mileage and produce 97 percent of all rail freight revenues in the United States.

Freight railroads have an important stake in highway legislation. One major concern is with programs developed in recent years to improve the safety of rail-highway grade crossings. The second part of this statement addresses these programs and offers our views as to their future purpose and direction. Another direct interest in the highway program is with highway cost responsibility and user charges, which this statement will discuss first. Railroads face extensive competition from motor carriers, and Federal highway user charges have a direct and important influence on that competition.

Competition between trucks and railroads has been growing steadily for two decades. In the five years between 1967 and 1972, the most recent years for which comprehensive data are available, the rail share of intercity ton-miles for manufactured goods fell at an average rate of one percent a year[1], while the truck share grew by a total of 6.4 percent. That trend continues, as more recent data confirm. This is not to say that all railroad traffic is truck competitive -- there remain many freight movements for which railroads compete among themselves or with other modes, such as waterways. But it does refute the conventional wisdom which until recently held that truck costs were much higher than rail costs and that the two modes therefore competed only in a limited way -- for small loads, short hauls, or valuable goods. In fact, trucks now compete with railroads on some transcontinental hauls of such heavy goods as lumber and steel.

Table 1 shows costs for several kinds of rail service and for a typical rail-competitive truck. At the shipment sizes shown, 20 and 25 tons, truck costs are below fully allocated rail costs for some services. This implies that rail rates must be below fully allocated costs for railroads to compete in these markets. Railroads do compete with trucks for these shipments -- 44 percent of boxcar shipments and 58 percent of flatcar shipments are 30 tons or less. Some of these shipments may be too bulky for a single truckload movement, but a significant number are not.

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[1] Transportation Facts and Trends, Washington, D.C.: Transportation Association of America, July, 1980.

These comparisons do not provide a complete view of the extent of competition, since transportation costs and rates are only part of total distribution costs. Even where truck rates are higher than rail rates, superior truck service quality can give motor carriers a competitive edge by reducing a customer's warehousing costs and the amount of inventory which must be bought and stored.

In itself, the rise of truck competition would not necessarily represent a transportation policy problem. Given a sufficient degree of regulatory freedom, railroads could adjust to changes in the nature of competition and the transportation market. The serious problem for transportation policy is that under the current system of financing the highways, heavy trucks are subsidized. That subsidy has become a significant factor in the competitive balance between trucks and railroads.

Only a comprehensive study of highway cost responsibility could provide a definitive estimate of the extent to which heavy trucks are subsidized, but there are many strong reasons to believe that the subsidy does exist and is extremely significant.

First, it is important to distinguish between heavy trucks and other truck types which range all the way down to four-axle pickups. The claim that "trucks pay their way" usually refers to all trucks, as a group, and ignores the cross-subsidy that heavy trucks (those above 50,000 pounds) receive from light- and medium-weight trucks.

When heavy trucks are treated as a distinct category, most highway cost responsibility studies find that they underpay. The last federal cost allocation study, performed in 1970, showed that heavy truck user charges fell short of cost responsibility by 70 percent. More recent state studies have produced similar results. A study done by the state of Washington estimated that heavy truck user charges would have to increase by 52 percent to match cost responsibility. A Mississippi study called for a 77 percent increase, a Georgia study 70 percent, and a Florida study 127 percent.

These results are all the more striking when considered in light of the bias favoring heavy trucks which is inherent in most cost responsibility studies. Perhaps the most important of these is the way most studies allocate the common or "overhead" costs of the highway system. Sixty to eighty percent of highway expenditures cannot be attributed to any vehicle trip or class. Most studies arbitrarily distribute responsibility for these costs on the basis of vehicle-miles traveled (VMT), thereby ensuring that light and medium vehicles will contribute virtually all of them.

On one issue all studies agree: heavy trucks are the vehicles most responsible for pavement damage and wear. The AASHTO Road Tests have established the relationship between axle weight and pavement stress, finding that pavement damage increases exponentially with increasing axle weight (see Table 1). These figures imply that an 80,000 pound, five-axle truck does nearly 10,000 times the pavement damage of a full-sized passenger automobile.

The relationship between axle weight and pavement life is of increasing importance, as the continuing deterioration of parts of the Federal-Aid highway system would seem to indicate. Truck weights have increased -- figures collected by the Federal Highway Administration show a trend to more heavily-loaded axles. This trend results in part from the increased gross weight limits enacted in recent years by the states and the Federal government. Heavy truck travel has also increased steadily. The combined effect of these trends has been to increase dramatically the wear and tear on highway pavements. This increased truck traffic is a primary cause of the ever increasing amount of highway mileage on which pavement has deteriorated into poor condition.

Much of the Interstate System is approaching the end of its design life. As this occurs, pavement quality declines and roads become increasingly susceptible to the effects of heavy axle loads. Pavement deterioration thus occurs at an increasing rate, and the impact -- and cost -- of each successive heavy axle rises. And as pavements deteriorate, fuel consumption and operating costs of all vehicles increases.

An important question in assessing the heavy truck role in pavement deterioration is the extent to which weather and other factors also reduce pavement service lives. The Federal Highway Administration (FHWA) is now studying this question as part of the DOT highway cost responsibility study Congress requested in Section 506 of the Surface Transportation Assistance Act of 1978. Leading highway engineers now believe that 80 percent or more of pavement deterioration relates to use with weather and other factors responsible for the remaining fraction.

As the physical impact of heavy truck traffic continues to grow, so does the expense of maintaining, repairing, and rebuilding pavement. Increases in pavement resurfacing costs have outpaced inflation; by 1979, these costs had risen 74 percent from their 1975 levels, as compared with a 35 percent rise in the Consumer Price Index during the same period.[2]

At the same time, pavement resurfacing accounts for a greater part of highway expenditures as the emphasis of highway programs shifts from extending the road system to preserving it. Highway expenditures have therefore been increasingly directed to performing repairs for which heavy trucks are largely responsible.

While the costs of heavy truck traffic have clearly increased significantly since 1961, Federal truck user charges have not. Moreover, under the present user charge structure, increased truck traffic does not lead automatically to increased revenues. Fuel tax payments, which account for the greatest share of truck user charge revenue, increase only slightly as truck weight increases, yet as the AASHTO figures in Table 2 indicate, the impact on pavement costs increases markedly. The result has been a growth in the subsidy to heavy trucks, since the amount of revenue they contribute has declined relative to the costs they impose on the highway system.

The extent of this subsidy can be measured and documented only by a thorough and comprehensive cost responsibility study. The current DOT and Treasury studies, requested by Congress in Sections 506 and 507 of the Surface Transportation Assistance Act of 1978, may perform the required analysis. Whether those studies do provide the needed answers depends on how several key methodological questions are resolved:

1. Since common costs are, by definition, impossible to attribute to any vehicle class on the basis of cost responsibility, a study alone cannot determine the best standard for allocating them. Several methods may each offer advantages, depending on the economic and social impacts of alternative arrangements for distributing highway

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[2] Pavement repair costs as reported in "Price Trends for Federal-Aid Highway Construction," U. S. Dept. of Transportation, 1979; Consumer Price Index mid-year average as reported by Bureau of Labor Statistics.

costs among users. The selection of a common cost allocation method is therefore a policy choice, not a solely technical one. Accordingly, the study should present Congress with an assessment of the impacts of a range of alternative methods and allow Congress to select the one most consistent with overall transportation policy.

2. The study should not attempt to narrow the scope of its task by restricting the analysis to federal expenditures. The overall pattern of expenditures at all levels of government is the appropriate basis for a cost responsibility study, not the share contributed by one level alone. Such a restriction would distort user charges by linking them to government accounting practices which have no relationship to highway economics or costs.

3. In measuring attributable costs, the study should begin by identifying those costs which are avoidable and therefore are the minimum level of the user charge. Each vehicle should be charged at least the costs that would be avoided if it did not use the highway system.

4. Increased government expenditures are not the only consequence of pavement deterioration. As pavement quality declines, all motorists pay increased vehicle operating and maintenance costs. Unless governments act quickly to maintain the quality of the road, as budget restrictions have recently made impossible, these user costs are significant. When this occurs, the full avoidable costs of pavement deterioration exceed government expenditures. Highway user charges should reflect these costs, as should the assessment of cost responsibility.

A study which takes account of these four issues -- alternative common cost responsibility standards, the unity of highway expenditures, short-run avoidable costs as the minimum standard of user charges for each vehicle class, and the importance of assessing cost responsibility on the basis of all costs, whether or not they are government expenditures -- will contribute heavily to the sound financial management of the highway system.

Such a study will also be an important step toward eliminating costly subsidies to heavy truck traffic. This subsidy has had three major consequences. First, charging heavy trucks less than the full costs of providing and maintaining the highway system for their use has accelerated the growth of truck traffic on the highways. This, in turn, has led to two further impacts of the heavy truck subsidy: the underfunding of both the highway system and the railroads. The first results because each added truck trip imposes costs which exceed its contribution to highway revenues. The second occurs as railroads lose traffic to the highways or cut rates in an attempt to retain it.

Since truck rates do not cover the full costs of highway use, rail rates and earnings are driven below a level necessary to allow the industry to survive on a long-term basis.

The present legislation may not eliminate the truck subsidy; the DOT and Treasury studies are prerequisites to any final resolution of the problem. But action now can help improve the existing situation. At minimum, new legislation should not worsen it by increasing the subsidy. Relying on an indexed fuel tax to alleviate the shortage of highway funds would do exactly that.

Raising additional highway revenue by increasing the tax on gasoline and diesel fuel would ensure that heavy trucks continue to use the highways at the expense of other motorists, who pay the overwhelming share -- 82 percent -- of fuel taxes. Fuel taxes also fail to reflect the increased costs of added truck weight, ensuring that the heavier the truck, the greater the shortfall between its cost responsibility and user charge payment. Fuel consumption does not increase rapidly enough with added weight to offset the increased pavement damage due to heavier loads. As a result, the heaviest trucks receive the greatest subsidy from a fuel tax financing scheme.

The best available method for improving the correspondence between truck cost responsibility and user charges would be a weight-mileage tax such as that used in several states, most notably Oregon, which was the first to introduce such a user charge. Under a weight-mileage tax, rates can be set to reflect the avoidable costs of truck travel as they vary with the configuration of the vehicle, the weight it typically carries, and the distance it travels. It would eliminate the cross-subsidy of heavy trucks by lighter ones. Set at the proper levels, it could raise ample revenue to fund badly-needed highway programs to rehabilitate pavements and replace bridges.

The weight-mileage tax need be no more difficult to administer than most other user charges. Oregon, for example, spends less than 3 percent of the revenues from its weight-mileage tax on administration and enforcement. This task poses a more complex problem for a state, which must ensure compliance by firms outside of its borders, than it would for the federal government. A federal weight-distance tax could aid states by creating a central, uniform reporting system and reducing enforcement costs for state user charges -- most of which already entail mileage reports by trucks operating in their states, one of the major components of a weight-distance tax administration program. Truck weights are already reported under the Federal Highway Use Tax.

In seeking new sources of revenue for the Federal-Aid Highway program, Congress should explore a variety of user charge measures. By simply increasing the fuel tax, Congress would ensure the perpetuation of a costly and inefficient subsidy and an inequitable distribution of the expense of rebuilding the highways. As the fundamental nature of the highway program shifts toward preserving pavement from the effects of heavy truck traffic, it is especially appropriate that heavy trucks begin to assume a proper share of the costs. Weight-mileage taxes or other truck user charges would provide an effective means of bringing highway user charges into closer accord with the changing structure of highway costs.

* * * *

Although the current bill under consideration does not address the issue of highway safety, we would like, at this time, to offer some comments on this most important subject. We respectfully urge that future legislation include this matter.

In testimony before this committee on highway legislation in previous years, the railroad industry has been a strong advocate of highway safety. We continue in this support.

We congratulate the Congress for passage of important safety legislation in 1973, 1976, and again in 1978, when a series of new highway safety programs were specifically established and separately funded in the Federal-Aid Highway Acts.

The need for and value of these highway safety construction programs have been well documented. Reduced accident and fatality rates on the highways are already being achieved as a result of your action; and our society will continue to benefit in the future from these facilities which have been or are in the process of being improved.

The inventory of highway-rail crossings, which you authorized in the 1973 Federal-Aid Highway Act, is now complete. It reveals that the highway and railroad systems intersect more than 401,000 times. We, along with the American Association of State Highway and Transportation Officials (AASHTO), and others, are in the process of revising procedures which will provide the means for an accurate and viable update procedure.

The fact is that the present national grade-crossing safety improvement program initiated by the Congress is effective! The attached charts graphically show the effectiveness and emphasizes this point.

When a highly congested or unnecessary crossing is eliminated, or the appropriate traffic control devices are installed, the accident potential is reduced by 90 percent or more. The concentrated national effort to signalize or eliminate the most dangerous crossings on our streets and highways is well underway. As a result, during the past 10 years, the ongoing national grade crossing safety program has reduced the annual death toll at crossings by 50 percent (see Figure 1) in spite of an increase in exposure of over 40 percent. This accomplishment is unmatched by any other highway safety program before or since; and we fully expect that grade crossing fatalities will continue to show a marked decline in the next 10 years.

Of course, to those of you involved in the drafting of the 1976 Highway Act and the 1978 Highway Act, these are well-known facts which were well documented by the Department of Transportation in its 1972 Report to Congress on Railroad-Highway Safety and by our testimony offered two years ago.

The Congress incorporated virtually all of the DOT's recommendations in the 1973 and 1976 Federal-Aid Highway Acts and continued and refined these programs in 1978. In our previous testimony, we strongly supported these Acts and stated our belief that the specially funded, continuing program of highway-railroad safety improvement projects was a formula for success.

Our position this year remains unchanged. We sincerely believe that the continuing need and the demonstrable success of the highway safety program are the best arguments for its preservation.

The reliability and continuity of funding established by the Congress for the national highway program have resulted in what is unquestionably the world's most outstanding highway system. We are confident that preservation and continuation of the basic highway safety programs established by the Congress in 1973, 1976 and 1978 will be equally effective in continuing to remove the deadly hazards which remain.

Grade crossing safety improvements may require one to three years from initiation to completion. Various parties are involved in this program -- including state highway agencies, state regulatory agencies, local highway agencies, the Federal Highway Administration, railroad management, railroad unions, and material suppliers. Grade crossing improvement must go through a process which involves establishment of priorities, selection of projects to be implemented, execution of state-railroad agreements, design, ordering of materials, and installation. All parties of interest must work together in the performance of each of these functions or the objective of "completed projects" becomes an agonizingly slow process.

Because there are so many parties involved in the successful implementation of a highway-railroad crossing safety project, we at the Association of American Railroads, in cooperation with the Federal Highway Administration, have sponsored and are continuing to sponsor series of meetings among the participating parties in each of the states in order to identify and find solutions to problems which may be impeding the rapid installation of highway-railroad safety improvements. The participating parties represent the railroads serving the state, the state highway department or DOT, the FHWA, the AAR, FRA and Amtrak. Other organizations may also participate depending upon the circumstances in a particular state. These meetings have been highly successful in improving communications among the various participants and in overcoming problems. They have contributed materially to increasing the pace of the program in the states in which they have been held. We are in the second and some cases the third "go-round". The implementation of this program through these meetings and other avenues is a prime example of private industry, state and federal cooperation.

The level of work that has been achieved can only be maintained with stable funding. Thus, if sufficient funds are not continued, the momentum that has been generated in this safety program will be lost. For example, material suppliers will not be prepared for timely delivery of material if they suspect that funds will be drastically reduced the following years. Similarly, railroads will be restricted in their ability to hire and train additional personnel for design or installation of traffic control devices unless there is assurance of a continued federally-funded program.

The 1976 and 1978 Highway Acts provide that apportioned funds are available for expenditure for a period of three years after the close of the fiscal year for which they are authorized. In addition to an adequate level of funding over a period of years, this is an important provision for the effective planning and implementation of such an improvement program.

Figure 2 illustrates the obligation by the states of Section 203 funds of the Federal-Aid Highway Acts of 1973, 1976 and 1978 for highway-rail intersection safety improvement projects. This curve represents a dramatic increase in the installation of motorist warning devices and illustrates the fact that we have an accelerating program.

We are convinced, without any reservations, that this particular subject requires your continued support to assure that the present favorable trend will not abate. This includes crossings that are "on" the Federal-Aid System and those that are "off" the system.

The recently completed inventory of highway-rail intersections, which I previously referred to, reveals that the highway and railroad system intersect at more than 401,000 locations including both public and private crossings. Of this total, 218,000 are public crossings at grade; 142,000 are private grade crossings; and 41,000 are grade separations or pedestrian crossings. Of the 218,000 public grade crossings, 22 percent or 48,000 are on the Federal-Aid System, leaving 78 percent or 170,000 that are not on any Federal-Aid System.

Because the Congress in 1976 provided funds for "on system" and "off system" and in 1978 combined the two programs, the states and railroads have been provided with the necessary flexibility to address the problems in accordance with local needs. The continuation of the combined funding of both the "on system" and "off system" crossing safety improvement is essential.

Therefore, we urge the continuation of grade crossing improvement funding at a level of $225 million for the combined "on/off system" program. This will continue the present level of funding with a small adjustment for inflation.

There is another topic which I would like to bring to your attention. As you know, there is a serious highway bridge problem in this country. Recognizing this problem, Congress created the Special Bridge Replacement Program in the 1978 legislation. This program is designed to assist in the replacement of bridges which are structurally deficient or functionally obsolete.

Under present law, highway bridges over railroads are deemed eligible for rehabilitation or replacement but railroad bridges over highways, which serve the same traffic flow and safety functions, are not deemed eligible. Whether the highway is over or under the railroad is primarily a function of the topography at the particular site. Many of these bridges were built by the railroad at the request of the States years ago, and are now dangerous because they are too narrow or the overhead clearances are too low for today's automobile and truck traffic. In some cases, four-lane highways are reduced to two lanes in order to pass under these bridges and then expand again to four lanes.

Replacement or rehabilitation of these railroad bridges over highways is of little or no benefit to the railroad, but would be of great benefit to highway users. Their replacement or rehabilitation should be equally eligible for funding. We urge that railway bridges over highways be eligible for the special bridge replacement program as are highway bridges over railroads.

In addition, Mr. Chairman, we would like to call your attention to the subject of grade separations and railroad relocation.

We believe that the elimination of the vast majority of grade crossing accidents can be accomplished by the steady application of a "systems approach" to the problem. The "systems approach" is really nothing more than combining a crossing elimination program with a program of installing grade crossing traffic control devices.

The major purpose of the "systems approach" to the highway-rail intersection problem is the elimination of grade crossings. The simplest and least costly way to eliminate grade crossings is by closing them. There are many existing crossings where traffic is so light that signals are not economically justified and closing is the only reasonable recommendation. However, to assure safe and convenient access for motor vehicle traffic, it is usually necessary to accomplish crossing closings as part of a larger "systems approach" which includes the signalization or grade separation of adjacent crossings. Consequently, it is necessary to the overall safety program to provide crossing elimination funds.

Elimination funds can be used to build highway overpasses or underpasses at crossings with very heavy traffic volumes or crossings which are going to be used to handle traffic which is being channeled from nearby crossings slated for closing. In some highly congested urban areas, it has been determined that the most cost-effective solution is removal and relocation of a whole section of track.

best copy available

Section 163 of the 1973 Highway Act authorized demonstration projects to test the effectiveness of the systems approach and directed the Secretary of Transportation to report the results of the national railroad relocation study to Congress by July 1, 1975. We assisted the Department of Transportation in the development of data for that study.

The study identified 184 cities which are planning or proposing railroad relocation projects. While these projects sometimes contribute to the efficiency of railroad operations, nearly all of the benefits resulting from relocation accrue to the community in the form of reduced congestion, energy conservation, improved development potential, and ecological and aesthetic improvements. The cities have been quite vocal in their expressions to the states, the railroads and the Congress concerning their need for these improvements.

The Association of American Railroads jointly sponsored with the U. S. Conference of Mayors a series of four urban rail conferences to provide a forum for local government officials and railroad executives to discuss opportunities for improving urban rail facilities and to promote urban economy and community development. These conferences also helped establish channels of communication between the railroad industry and cities; and provide continuing support for joint city and railroad projects. These conferences were very well attended and outlined areas of conflict and opportunities. Participants at the conferences reinforced the findings of the aforementioned DOT study.

We support the findings of the Department of Transportation and agree with the cities that urban railroad relocation problems require consideration. In order to provide necessary flexibility in the solution of these problems to guarantee that the most cost-effective approach will be adopted, we propose the establishment of a grade crossing elimination fund to be used for both grade separations and railroad relocation projects.

Present and historical expenditures of federal funds from various sources for grade separation projects average about $150 million annually. The DOT Relocation Study estimated the total cost of such projects presently identified to be $2 billion to $3 billion. Over a ten-year period, this would be about $250 million annually.

Therefore, we recommend the continued funding of the Railroad Relocation Demonstration Projects and the authorization of $400 million annually for construction or reconstruction of necessary highway-railroad grade separations and for the relocation of railroads in heavily congested urban areas where the latter approach is a more cost-effective solution to the problem. Again, we suggest that the apportionment of these funds should be at least partly based on the number of crossings in each state to assure equitable distribution.

Further, in support of this approach is the results of the 1979 Conference on Unit Coal Train Community Impact sponsored by the U. S. DOT. A copy of the DOT Report to Congress is attached for your ready reference (Attachment I). The Association of American Railroads is most interested in having funding provided for energy-impacted railroads. Resulting from this conference, a new program providing funding is included in S. 2720 and H.R. 6417. We are hopeful that this legislation will be enacted during this Congress. If this legislation is not enacted, we encourage you to incorporate a program for energy-impacted roads and railroads in new legislation being developed.

We also recommend that the Federal share of the costs of projects constructed with the proposed grade crossing improvement funds and the grade crossing elimination funds should continue to be determined in accordance with Federal Highway Administration directives that specify the benefits and responsibilities of the public agencies and the railroads -- a process that fairly allocates the costs of all programs in accordance with the benefits derived. This recommendation is necessary in order to assure equity and balance in the national transportation system.

We sincerely appreciate this opportunity to express our views. Opportunities such as this bolster our conviction that the Congress will continue to enact the kind of responsible and meaningful highway safety programs which you have in the past.

TABLE 1

A Comparison of Rail and Truck Costs

CARGO WEIGHT (TONS)	TRUCKLOAD (BASE CASE)		RAIL CARLOAD[2/]	"DEDICATED" TOFC	"CARLOAD" TOFC
	TOTAL COST/ PER RUNNING MILE	TOTAL COST/ TON-MILE[1/]	TOTAL COST/ NET TON-MILE	TOTAL COST/ NET TON-MILE	TOTAL COST/ NET TON-MILE
25	$1.12	4.5¢	5.9¢	3.6¢	4.5¢
20	$1.12	5.6¢	6.7¢	4.4¢	5.6¢

SOURCE: 1979 AAR TRUCK COST MODEL,
NMTDB DATA

[1/] ADJUSTED FOR EMPTY MILEAGE AND CARRIER OVERHEAD.

[2/] ALL RAIL COSTS ASSUME A 1000 MILE HAUL AND REPRESENT FULL ALLOCATED COSTS FOR LATE 1979.

TABLE 2

EQUIVALENT 18-KIP SINGLE-AXLE LOAD APPLICATION FACTORS FOR VARYING SINGLE AND TANDEM AXLE LOADS—BASED ON AASHO ROAD TEST EQUATIONS

Single axles		Tandem axles	
Load, kips	Factor	Load, kips	Factor
2	0.0002	4	0.0004
3	.0008	6	.0014
4	.002	8	.004
5	.005	10	.01
6	.01	12	.02
7	.02	14	.04
8	.03	16	.06
10	.08	18	.10
12	.18	20	.15
14	.34	22	.23
16	.60	24	.33
18	1.00	26	.46
20	1.57	28	.64
22	2.37	30	.85
24	3.45	32	1.12
26	4.86	34	1.48
28	6.73	36	1.85
30	9.09	38	2.33
32	12.05	40	2.90
34	15.72	42	3.57
36	20.23	44	4.35
38	25.70	46	5.26
40	32.29	48	6.31

FIGURE 1

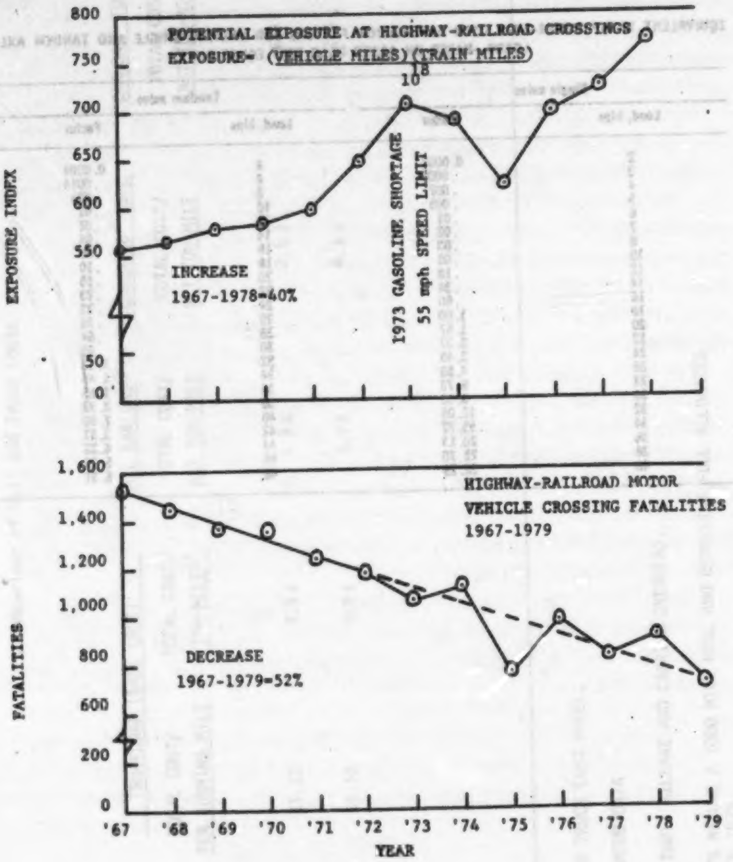
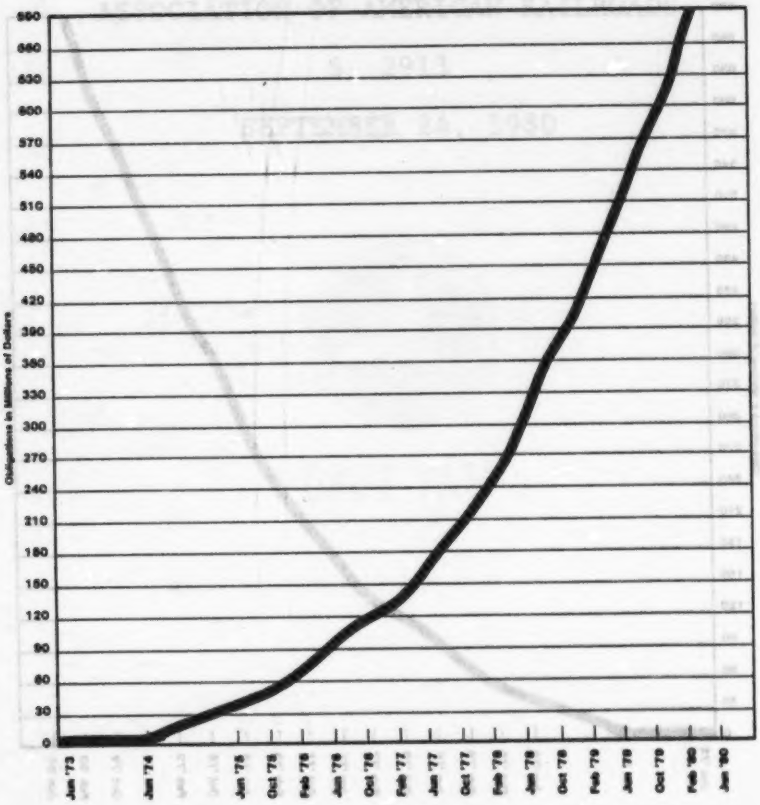

POTENTIAL EXPOSURE AT HIGHWAY-RAILROAD CROSSINGS
EXPOSURE= (VEHICLE MILES)(TRAIN MILES) / 10^18
EXPOSURE INDEX
800
750
700
650
600
550
50
0
INCREASE
1967-1978=40%
1973 GASOLINE SHORTAGE
55 mph SPEED LIMIT
HIGHWAY-RAILROAD MOTOR
VEHICLE CROSSING FATALITIES
1967-1979
FATALITIES
1,600
1,400
1,200
1,000
800
600
200
0
DECREASE
1967-1979=52%
'67
'68
'69
'70
'71
'72
'73
'74
'75
'76
'77
'78
'79
YEAR

FIGURE 2

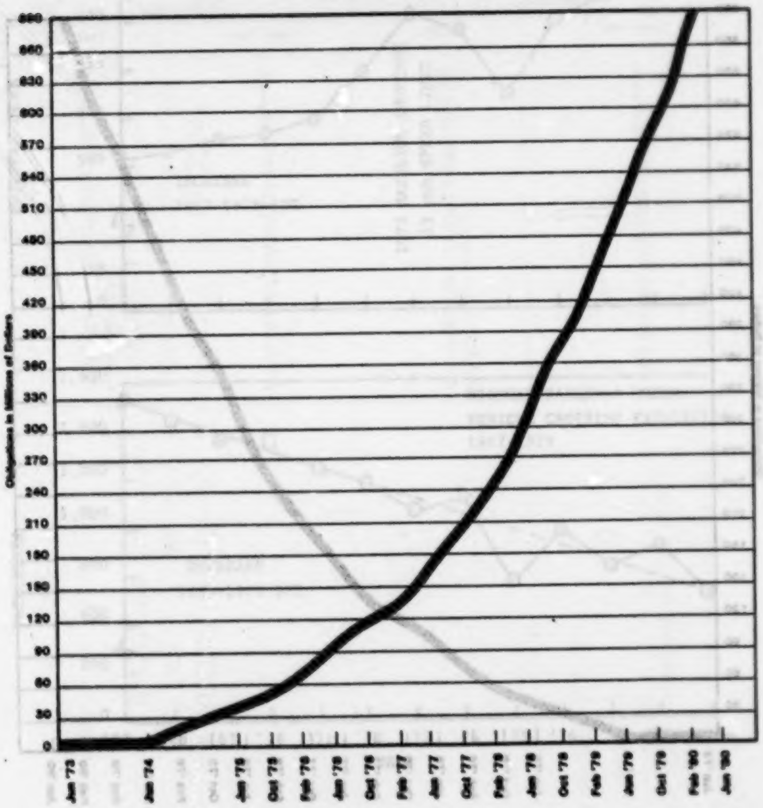
Obligations Under the Section 203 Highway-Rail Program, On System and Off System



Source: Federal Highway Administration, Office of Highway Safety

FIGURE 2

Obligations Under the Section 203
Highway-Rail Program, On System
and Off System



Source: Federal Highway Administration, Office of Highway Safety

ATTACHMENT I.

TESTIMONY OF
MR. WILLIAM H. DEMPSEY, PRESIDENT
ASSOCIATION OF AMERICAN RAILROADS
S. 2913
SEPTEMBER 24, 1980

IMPACT OF INCREASED UNIT TRAIN TRAFFIC

MAY 1980

U.S. DEPARTMENT OF TRANSPORTATION

Washington, D.C. 20590

IMPACT OF INCREASED UNIT TRAIN TRAFFIC

REPORT OF THE SECRETARY OF TRANSPORTATION TO THE UNITED STATES CONGRESS

PURSUANT TO

SECTION 162, PUBLIC LAW 95-599
THE SURFACE TRANSPORTATION
ASSISTANCE ACT OF 1978

MAY, 1980

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Appendix B - Proceedings of St. Louis Conference

I. Introduction

The energy situation in the United States has resulted in increased emphasis on coal usage. The increased emphasis has resulted in a demand to utilize significant quantities of subbituminous coal from the western coal fields to supplement or supplant existing high volumes of production of bituminous coal from the middle and eastern fields. This has resulted in the rapid development of and exploitation of western coal, especially in the Powder River Basin of Wyoming and Montana. This coal is being shipped by long unit coal trains to utility power plants in the Southwest and the Central Eastern United States.

A unit train is any train which hauls one commodity between a single origin and single destination with the core equipment remaining as a unit in shuttle service. A unit train may consist of anywhere from 50 or fewer cars to more than 100, and it may operate frequently or infrequently. The emergence of unit coal trains, especially in the West, and the anticipated increase in numbers of such trains has caused many to express concern over the impacts such trains may have on communities along rail coal routes. Many communities which in the past experienced a modest number of general merchandise trains rolling through their jurisdictions may face increasing numbers of unit coal trains. These trains can be up to a mile in length and can cause substantial delay and access problems within these communities.

In recognition of these possible problems, the Congress required an indepth investigation of the extent of impacts on communities of increased unit train traffic resulting from national energy requirements in Section 162 of the Surface Transportation Assistance Act of 1978 (STAA). Specifically, Section 162 states:

IMPACT OF INCREASED UNIT TRAIN TRAFFIC

SEC. 163. (a) The Secretary of Transportation, in cooperation with the State highway departments, and appropriate officials of local government, is authorized and directed to undertake a comprehensive investigation and study of techniques for alleviating the environmental, social, economic, and developmental impacts of increased unit train traffic to meet national energy requirements in communities located along rail corridors experiencing such increased traffic. Such study and investigation shall include, but not be limited to, the following:

(1) identification of specific adverse impacts on affected communities;

(2) examination of specific techniques to alleviate such impacts, including but not limited to low cost systems management methods, grade crossing separation, and rail line relocation, together with an assessment of the cost and benefits of each such technique;

(3) delineation of criteria to determine whether grade crossing separation or rail line relocation is appropriate for a given location;

(4) determination of the proper share of the cost of implementation for each such technique to be borne by the railroad or railroads based on the net benefit derived; and

(5) determination of various costs for different types of separation construction based on such factors as number of rail lines and number of highway lanes intersecting at the crossing.

(b) In the conduct of the investigation and study authorized by subsection (a) of this section, the Secretary shall specifically consider the following rail corridors:

(1) the Burlington Northern mainline from Beach, North Dakota to Staples, Minnesota, from Staples, Minnesota to Minneapolis/St. Paul, Minnesota and from Staples, Minnesota to Duluth, Minnesota/Superior, Wisconsin;

(2) the Burlington Northern line from Jeder, Nebraska to Rulo, Nebraska;

(3) the Chicago Northwestern line from Harrison, Nebraska to Blair, Nebraska; and

(4) the Union Pacific line from Scottsbluff, Nebraska to Steele City, Nebraska.

(c) The Secretary shall report to the Congress on the results of the investigation and study authorized by subsection (a) of this section not later than March 31, 1979. Such report shall include the information required by subsection (a) together with the Secretary's conclusions and recommendations for appropriate legislation.

(d) There is hereby authorized to be appropriated not to exceed $200,000 to carry out this section.

The Department of Transportation (DOT), using existing resources since no funds were appropriated by Congress, has undertaken the study effort. The purpose of this effort has been to address the major issues raised by Section 162 in as timely a manner as possible. Specifically, the effort was directed towards unit coal trains as there are currently no significant movements of other energy recources by unit trains.

The study approach consisted of drawing on information from the following sources: a unit coal train community impact conference conducted specifically to address this issue; several State studies being undertaken to investigate coal train impacts; and information DOT has previously gathered on the coal train issue.

A major portion of the study effort was the Unit Coal Train Community Impact Conference (St. Louis Conference) held to discuss issues raised by Section 162. The conference assembled 36 individuals from various perspectives who represent the expertise available on the unit coal train impact issue. The participants met in St. Louis, Missouri, from July 25 through July 27, 1979, and the conference was conducted and documented by a consultant firm hired by DOT. The conference included several structured sessions to obtain the full participation of and interaction among the conference attendees. The participants addressed the areas of adverse community impacts that are or could be associated with unit coal trains, possible solution techniques and their costs, criteria to determine what solutions are appropriate, and funding resources, both existing and needed. A more detailed summary of the conference is presented in Appendix A. A more detailed conference report prepared by the consultant is presented in Appendix B.

The State studies which were used for this report are directed towards coal train impacts in specific corridors in the West, specifically in the States of Minnesota, North Dakota, Colorado, Nebraska, and Utah. Further, the Chicago and Northwestern Transportation Company has applied to the Federal Railroad Administration for loan guaranties

for a proposed coal line project, and the draft environmental impact statement on the proposal contains information pertinent to the coal train issue. It is noted that certain of these studies address the rail corridors delineated in Section 162(b), and a decision was made not to duplicate these ongoing studies. These other study efforts have been reviewed by DOT and are summarized in Appendix A.

II. Analysis of Section 162 Issues

The following analysis of the specific issues delineated by Section 162 of the 1978 STAA is based on the St. Louis Conference Report, findings of other ongoing studies, and other related past and present evaluation efforts within DOT pertaining to rail transportation, especially rail movements of coal.

A. Identification of specific adverse impacts on affected communities.

Long trains, such as the typical 100-car unit coal train, can adversely affect communities in several ways. The participants at the St. Louis Conference identified an extensive list (see Exhibit 1) of community problems that can be associated with unit coal trains. In general, the results from the St. Louis Conference and other studies (see Appendix A) indicate that the most critical impacts fall into the following categories:

1) delay to vehicles at grade crossings,
2) vehicular and pedestrian safety,
3) disruption of vital community functions and growth,
4) environmental concerns.

Delay to Vehicles at Grade Crossings

The most frequently identified problem is the delay such trains cause to vehicular movements. In those communities where most if not all road and street crossings are at-grade (i.e., not grade separated), frequent train movements can have a significant impact on the capacity of the local street system and the mobility of the surrounding community.

EXHIBIT 1

LIST OF COMMUNITY PROBLEMS ASSOCIATED WITH UNIT COAL TRAINS

Emergency vehicular delays
Delays in gaining access to emergency service by private auto
Duplication of community services
Separation of the community
    Economic
    Social
    Political
Creation of "wrong side of the tracks" neighborhoods
Loss of community/neighborhood cohesion or identity
Inability to pursue preferred development patterns
Introduction of nonpreferred development patterns
Underutilization/waste of public infrastructure investment
Land use conflicts
Land value declines
Reduction of economic growth
Loss of economic viability, particularly in some areas of the community
Redistribution of economic activity
Maldistribution of benefits and costs of coal movements
Taxing on local budget capability
Reduction of non-coal rail services
Boom town syndrome
Motorist safety
Pedestrian safety
Safety associated with derailments
Rough grade crossings
Railroad employer safety
Delay to:
    Private vehicles
    Commercial vehicles
    Service vehicles
    Pedestrians
Time, money, energy and psychological cost of delays
Traffic pattern changes
Traffic congestion
Access difficulties to work, school, shopping, recreation, social, and business activities
Dirt
Dust
Noise
Automobile emissions
Train engine emissions
Vibration
Visual intrusion
Health problems related to environmental deterioration
Inadequate railroad/community communication
Inadequate railroad/railroad communication/coordination
Inadequate information regarding rail operations
Competition for limited railroad capacity

Source: Report on the Unit Coal Train Community Impact Conference - August 1979

Table 1 displays the magnitude of daily crossing closure time which could be expected at any given at-grade crossing under various volume and speed conditions, assuming a mile-long (approximately 100-car) coal train movement.

Table 1

Train Speed m.p.h.	Approximate Closure-Minutes per Train	Daily Train Volume	Total Time (minutes) of Closure per Day per Crossing
20 m.p.h.	3.5 minutes	10	35 minutes
		20	70
		50	175
		100	350
40 m.p.h.	2 minutes	10	20 minutes
		20	40
		50	100
		100	200

As can be seen, larger numbers of long trains can cause significant crossing closures on a daily basis. The total closure time can be somewhat reduced if train speeds are increased. In most cases the total delay to the traveling public is longer than actual crossing closure time, due to the queuing of vehicles. Once the crossing is open it takes time for the backed up vehicles to clear the crossing area.

Train operations can block a number of at-grade crossings at one time. Time can be frustrating to drivers when there are no alternative routes to bypass the blockage, especially if the blockage is for an extended period of time. This problem becomes more critical when the vehicles so blocked are fire, police, or ambulance vehicles attempting to respond to emergency calls. Many smaller communities have only one fire station or hospital, and emergency calls which require movement across the tracks can be a problem if such crossings are frequently blocked by train movements, especially in critical situations where time can be of paramount importance.

Vehicular and Pedestrian Safety

Frequent train movements or stoppages of trains can and do cause people to take unnecessary chances to beat the train to the crossing. Pedestrians, including school children, have been known to crawl under stopped trains in lieu of waiting for the train to clear a crossing. As train volumes increase, the potential for both pedestrian and vehicular accidents increases. The same can be said for increases in pedestrian and vehicular volumes, which also increase the accident potential.

Table 2 is based on data from the August 1972 U.S. DOT Report to the Congress on Railroad-Highway Safety. It indicates the increased accident potential at a crossing caused by increased train movements with all other conditions remaining unchanged. For example, the potential for an accident at a crossing (equipped with crossbucks) with a daily highway traffic volume of 0 -- 500 vehicles per day increases by 67 percent when the train volume increases from 10 to 20 trains per day. Increased train volumes have a higher impact on crossings with passive warning devices and a lesser impact of crossings with active devices.

Table 2

Type of Warning Device	Existing No. of Daily Trains	Daily Trains Increased To	Existing Average Daily Highway Traffic	Increased Accident Potential (percentage)
Crossbucks	10	20	0 - 500	67 %
		40		167
	10	20	501 - 1,000	66
		40		174
	10	20	1,001 - 5,000	69
		40		185
Active Warning Devices (Flashing Lights)	10	20	1,001 - 5,000	24
		40		71
	10	20	5,001 - 10,000	32
		40		86

Disruption of Vital Community Functions and Growth

Impacts on vehicle delay and safety are, to a great extent, easily understood and identifiable. They can be measured and predicted. This cannot be said of the type of impacts which affect a community's social and economic structure. These impacts are unique to each community and cannot be easily measured.

In this regard, impacts such as the following are frequently mentioned:

1) disruption of community services,
2) separation of neighborhoods,
3) incompatible land use, and
4) erosion of the economic base.

In those cases where the main area of work and shopping is on one side of the tracks and the principal place of residence is on the other, disruption can occur if frequent train movements are encountered. This type of situation could cause the general public to look for alternate places to work and shop, resulting in the economic decline of the original commercial area--generally the downtown business district.

At high levels of traffic, the railroad corridor can act as a barrier to community growth in the same manner as a river or other physical barrier. Some neighborhoods could be considered as a cohesive unit even with a bisecting railroad, provided rail traffic is infrequent. However, as the train traffic increases the neighborhood could be split into two separate units. Additionally, increased train traffic could cause a deterioration of residential property immediately adjacent to the tracks since the existing adjacent land use becomes incompatible with the increased train traffic. Such changes are considered disruptive to the community.

Environmental Concerns

Increased train traffic can also result in increased noise, depending on the type of train movements and their frequency. Increased train traffic may also increase air pollution as a result of motor vehicles idling at blocked crossings. Coal dust is usually not a problem because the coal is oiled or wetted as it leaves the mine. Finally, vibration can be a problem for particular combinations of train speed and weight, car types, and roadbed conditions. These adverse environmental impacts can bring about undesirable changes in the quality of life in the vicinity of the tracks. The primary problem, however, remains congestion at grade crossings.

Problem Perception

It is anticipated that coal train traffic volumes will increase as the added emphasis on coal as an energy source significantly increases the amount of coal shipped by rail throughout most of the country. Based on information from the National Energy Transportation Study (reference opening remarks on national coal policies and projections included in Appendix C of the Report on the Unit Coal Train Community Impact Conference), by 1990 total rail traffic could approach 2 trillion ton-miles per year. This would amount to an approximate 230 percent increase over current levels. A large portion of this increase in shipments will be attributable to coal. In 1990 coal could represent 60 percent of all rail ton-miles in the United States. In 27 of the 48 lower States, coal shipments could equal or exceed 50 percent of all rail ton-miles by 1990. In most other States, coal will represent a significant portion of rail shipments.

The extent that adverse impacts of increased or heavy train movements are of significance will vary with the perceptions and the unique conditions present in each individual community affected. Communities which have experienced these impacts for many years may have adjusted to them over time. On the other hand, communities which are now facing suddenly increased train traffic may not have adjusted to the changing conditions and may be more sensitive to the adverse impacts actually being experienced.

Additionally, communities may react quite differently to identical conditions depending on how they view the relationship of the train traffic to other community values and goals. In the earlier days of railway expansion many communities considered the railroad as essential to the economic viability of the area. The railroad provided a means to transport goods to and from far-reaching markets. It represented economic progress and stability for a community. In a modern day coal town the coal train is a visible manifestation of the economic well-being of the community. In such a place, the impacts of heavy coal train movements may not be considered particularly adverse but rather as inconveniences which are a small price to pay for the many benefits received.

Conversely, the same trains passing through other communities which have little if any economic tie to coal production or usage may cause residents to view the adverse impacts as an unnecessary and unwanted burden. The same could be said of all heavy through-train movements which are not considered essential or a contributor to the social or economic well-being of the community.

The variability of community perception of the impact of coal trains is also evident from a review that DOT staff has been conducting on coal train impacts. Preliminary findings of this staff review show that considerably more coal is hauled on eastern rail lines than western, and in addition there are likely to be more crossings on the eastern rail lines that are experiencing higher train and highway volumes. This would indicate that adverse impacts should be as severe if not greater on the eastern rail lines. yet few eastern communities have been raising this impact issue. This may be due to the fact that eastern communities have had a longer period of time to adjust to heavy train movements while western communities are experiencing heavy train movements for the first time. Additionally, the western train traffic is increasing at a rapid rate, complicating the adjustment process.

An important theme evident from both the St. Louis Conference (see Appendix A, p. A-2) and a study the Minnesota Department of Transportation and the North Dakota Highway Department have undertaken concerning railroad/community conflicts (see Appendix A, p. A-20)

is that adverse impacts associated with unit coal trains do not differ significantly from those associated with train traffic in general. Few, if any, adverse impacts are unique to a unit coal train. Yet many communities see vastly increased train volumes as a change that has or will transform what has been a tolerable situation into one that is no longer acceptable to the community. The issue as it is perceived by local areas is that community problems created in certain rail corridors by increased train volumes, both now and in the future, are mainly associated with coal movements.

B. Evaluation of Specific Techniques to Alleviate Unit Coal Train Impacts

Since the magnitude and significance of impacts may vary considerably between communities, the techniques to alleviate these impacts also vary. Not all communities experience all possible impacts and the actual cause of some impacts may vary.

Exhibit 2 shows a wide range of categories of techniques identified by participants at the St. Louis Conference that might be used to alleviate impacts. The range in cost of techniques varies considerably from relatively simple techniques requiring no capital outlay to capital intensive techniques that may cost upward towards $100 million. These techniques also represent solutions that could be implemented by either the railroad or community while several require joint rail/community cooperation.

Low-Capital Improvements

The Minnesota-North Dakota study has developed a preliminary list of about 40 potential low-cost solutions as shown in Exhibit 3. The feasibility of these specific low-cost techniques is to be investigated further in the next phase of the study.

In some cases low-cost solutions such as modification of train operations may be entirely adequate to alleviate the impact. For example a crew change taking place within a community may be causing a blockage of crossings. A low-cost solution would be for the railroad to change its practice and change crews at another location which minimizes grade crossing blockage. Generally, this type of operational change would be considered a very cost-effective solution.

EXHIBIT 2

TECHNIQUES TO ALLEVIATE ADVERSE IMPACTS SELECTED BY CONFERENCE PARTICIPANTS

	Adverse Impacts				
Techniques	Emergency Vehicle	Vehicle Delay	Safety	Community Growth	Severance of Community
Grade Separation	X	X	X	X	X
Rail Relocation	X	X	X	X	X
Rail Consolidation	X	X	X	X	X
Community Relocation	X	X	X	X	X
Land Use Planning	X	X	X	X	X
Increased Train Speeds	X	X	?	?	X
Community Education		X	X		
Relocate Rail Siding	X	X	X	X	X
Train Operations	X	X	X	X	X
Stagger Work Hours		X	X		
Direct Communications	X				
Adding Crossings	X	X			X
Crossing Closures			X		
Coordinating of Highway/Rail Signals	X	X	X		
Improved Geometrics			X		
Improved Rail/Highway Warning Devices			X		
Transportation Corridor Development	X	X	X	X	X
Enforcement			X		
Duplicate Emergency Services	X				
Scheduling Trains	X	X	X		X
Vehicle Rerouting	X	X	X	X	X
Highway Relocation	X	X	X		X
Conspicuity			X		
Rail Rerouting	X	X	X		X
Public Transportation		X	X		X
Improved Rail/City Relations	X	X	X	X	X

Note: X – indicates adverse impacts that may be alleviated by selected technique.
? – some question as to effectiveness.

Source: Report on the Unit Coal Train Community Impact Conference – August 1979

EXHIBIT 3

PRELIMINARY LIST OF POTENTIAL LOW COST SOLUTIONS TO RAILROAD/COMMUNITY CONFLICTS

Railroad Operating Practices

Ensure standing and local switching trains do not activate warning devices unnecessarily

Ensure trains do not stand in crossings unless necessary

Do not idle engines while trains are standing for long periods of time

Control train speeds through communities

Consolidate traffic on a single line

Divert traffic to alternative routes

Change switching operations schedule

Establish procedures to break trains in emergency situations

Railroad Facilities

Change location of train meetpoints

Change location of crew change points

Improve maintenance and appearance of track right-of-way

Extend sidings; construct additional sidings

Straighten track alignment

Upgrade warning device activators

Upgrade switches

Change location of switching operations

Decrease derailment possibilities

Change train refueling location

Change train maintenance location

Community Transportation Facilities

Widen street at grade crossing

Locate additional warning devices farther from crossing

Improve crossing maintenance

Improve crossing and crossing approach maintenance in winter

Improve or upgrade warning devices

Divert traffic to alternative routes

Designate emergency vehicle only routes

Extend gate arms

Modify approach gradients

Synchronize warning signals and traffic lights

Develop/improve pedestrian crossings

Construct new at grade crossings

Close at grade crossings

Railroad/Community Communication

Establish communications between emergency service providers and local train controller

Establish communication channels between railroad and community officials

Community Development Patterns

Remove visual obstructions adjacent to the main line

Conduct preventive planning and related actions such as zoning and infrastructure development

Relocate storage facilities containing combustible products away from the main line

Community Services

Outfit firefighters with personal emergency equipment

Acquire new fire equipment and construct new fire stations

Reroute school buses

Reroute transit vehicles

Establish special emergency routes

Establish alternative emergency medical procedures

Establish coordination between jurisdictions fire services

Behavior Modification

Market to promote area development

Campaign to change people's perceptions of problems

Conduct safety education program

Enforce laws against violating warning signals

Source: Alternate Solutions to Railroad Impacts on Communities Phase I Summary Report: Problem Definition

NOTE: Certain solutions presented above may not necessarily be low cost, since site conditions and operational expenses can affect project economy.

Where the cause of the adverse impact cannot be readily eliminated by specific modification of train operations, other low-cost solutions should be explored.

For example, if the concern is blockage of emergency vehicles, then improved communication between the railroad and community may be the answer. With sufficient advance notice of a long unit coal train, the community may place emergency equipment on both sides of the track in case of a call during the presence of a train.

Duplication of Services

Where the frequency of trains is high it may be necessary to duplicate community services to ensure adqequate coverage on both sides of the track. This is usually a more costly solution to the community but may be the most expedient, especially if such treatment is consistent with long-term community goals and planning.

Grade Separation

The construction of grade separations is a common solution where delays to vehicles are considered to be unacceptable. Grade separations are among the more costly solutions, ranging from about $½ million to several million dollars depending on the site conditions. A properly placed grade separation can alleviate concerns about blockage of emergency vehicles. However, it is difficult to justify a grade separation on the basis of road user or safety benefits alone. This is especially true in smaller communities where the total daily crossing traffic is not large. Grade separations are generally supported by broader issues of overall safety, capacity, and mobility needs of the area. It is for these reasons that available highway construction funds are generally expended for grade separations only on the more heavily traveled routes experiencing severe capacity and mobility problems due to delays at the at-grade crossing. Lower volume grade crossings in smaller communities seldom can compete with a significant backlog of such higher priority crossings in more populated areas.

The construction of grade separations for smaller communities must generally be justified on a basis other than traditional transportation needs. Such factors as community cohesiveness and economic viability of the overall community must be considered. Where this type of consideration is the paramount justification, the need for the grade separation should be evaluated as a function of broader social community values as compared to the purely transportation related warrants of capacity and mobility of the road system. A factor for consideration must therefore be the concern of the citizens of smaller communities that they have relatively the same level of access to basic community services as that enjoyed by larger communities which can more easily justify grade separations.

Where the benefits supporting a grade separation consist principally of intangible social and economic factors, cost-benefit analysis is difficult if not impossible. In such cases, the justification for a grade separation is often more subjective than objective.

In this respect it could be argued that a grade separation is warranted at all highway-rail crossings due to the unequal and incompatible relationship between the highway vehicle and the train as they compete for the same space; i.e., the only way to equalize this competition is to separate the movements. Grade separations eliminate the problem of at-grade crossing accidents. Additionally, it could be argued that all communities warrant at least one separation structure to ensure free flow community access across the railroad barrier at all times; e.g., uninhibited access is in itself essential for any community's social and economic viability. These subjective arguments may represent desirable objectives. However, considering that funds are limited and subject to significant competition for fulfilling a vast range of public needs, objective criteria which attempt to allocate funds in a cost-effective manner cannot be ignored.

For some communities grade separation may not be a desirable solution. The grade separation improvement with its approach embankments can in itself be considered a barrier, particularly from a visual standpoint. Further, the land requirements for the approach fills may involve disruption or taking of existing developed property which is undesirable from a community's viewpoint.

Rail Relocation and Consolidation

The relocation of a railroad may be appropriate in some instances. Rail relocation, if properly planned, can eliminate many at-grade crossings and reduce the number of grade separations needed. Rail relocation is also an effective solution for eliminating such adverse community impacts as separation of neighborhoods, noise and air pollution, and land use incompatability situations.

Rail relocation projects are extremely costly and may be difficult to support with a cost-benefit analysis. For instance, under the Railroad-Highway Crossing Demonstration Program being administered by the Federal Highway Administration, the cost in 1978 dollars for 11 of these demonstration projects involving major rail relocations range from $24 to $114 million per project with an average project cost of about $55 million. Benefit-cost ratios for these demonstration projects are greater than one but not significantly so. In another instance, Colorado is considering a massive $325 - $350 million rail rerouting project (see Appendix A, p. A-22 which involves a major rerouting of a statewide north-south rail movement with none of the proposed alternates having a benefit-cost ratio greater than one). Due to the generally high costs of rail relocations, this option should only be given serious consideration when an analysis demonstrates that benefits, both direct and indirect, clearly outweigh other less costly solutions which may be available.

In lieu of rail relocation, rail consolidation may be a feasible way to reduce adverse impacts. Where two or more rail lines traverse a community it may be possible to consolidate these lines into an existing rail corridor. One disadvantage of this solution would be that rail traffic in the selected corridor would be increased. This may cause additional impacts along the combined corridor which would have to be offset by other benefits of the consolidation. Where only minimal additional connecting track construction is required this technique could be highly cost-effective.

Summary

Which of the above techniques is the most appropriate would depend upon the unique conditions present in a given area affected by an increase in rail traffic. It is difficult to generalize on benefits and costs since these are functions of specific site conditions. However, in most cases low-cost operational improvements can be considered to be the most cost-effective techniques, while rail relocation projects have only marginally favorable cost-effectiveness. Detailed analysis of each affected area would be necessary to determine which technique would be the feasible.

C. Criteria for Selection of Alternative Techniques

The most desirable solutions to unit train impact problems are those that alleviate the major adverse impacts for the least cost. For a given community, the feasibility of low-cost operational solutions should be explored thoroughly before serious consideration is given to higher cost alternatives.

Participants at the St. Louis Conference established general guidance or principles that might be used in measuring impacts, but specific thresholds or criteria for selecting corrective solutions were not developed. A particular concern raised by community representatives at the conference was that any criteria should be broad and flexible enough to recognize differences in community size and diversities in community perceptions of impacts.

There are no universally accepted specific criteria or warrants for grade separations. Many States use easily obtainable traffic data as a means of establishing threshold criteria for grade separations. However, the criteria so established must be viewed in light of other relative factors influencing the threshold.

For example, a State with a large number of potential sites for grade crossing separation and limited funds available for this purpose may set a relatively high threshold. Conversely, another State with few potential sites may set a much lower threshold as a warranting criterion. Another factor is the tolerance for delay. The tolerance for delay is less in sparsely populated areas as compared to the more populated and congested areas of the country. This tolerance for acceptance of various types of adverse impacts is a relative matter that plays a great part in establishing criteria.

The use of an exposure factor (a product of daily train volume X daily motor vehicle volume) is a common means of establishing warrants and thresholds. The threshold values warranting grade separations vary widely between States. At least one State would consider a grade separation justification with an exposure factor of 5,000, while other States would not consider such treatment until an exposure factor of 200,000 is reached. Most States fall between these extremes. Certain States also consider other factors such as community safety and emergency vehicle usage in establishing warrants.

These exposure factor thresholds, in addition to demonstrating funding and tolerance limitations, can also be considered as reflecting those break points where other broader community issues must be addressed. In this respect the exposure factor may be a reflection of experience by State and local officials of the point at which action should be taken or considered to alleviate a broad range of adverse impacts. Several community representatives at the St. Louis Conference though, expressed dissatisfaction with such traditional measures as the exposure factor since it may exclude adversely affected smaller communities where exposure measures are low because of low motor vehicle volume.

Due to the wide range conditions and variables affecting the States' decisions regarding threshold criteria for grade separations, it would be very difficult to establish specific criteria which could be agreed to by all parties. However, exposure ranges of 20,000 to 50,000 in rural areas and 50,000 to 100,000 in urban areas could be indicative of highway capacity and mobility problems which would warrant evaluation. Whether or not a grade separation could be reasonably justified in such cases would remain a matter of individual determination after careful consideration of all factors involved. Priority utilization of limited funding often is a controlling element.

Rail relocation projects are generally considered in those situations where all other possibilities do not appear practical. In those cases where the existing facility would require numerous grade separations and the cost of such construction is high or not feasible, rail relocation may be a viable alternative. There also may be cases where the existing rail lines may be incompatible with existing urban transportation needs and land use patterns. Where this occurs, rail relocation may be warranted from an overall urban planning objectives standpoint.

In this regard the changing character and needs of the urban place must be taken into consideration. Around the turn of the century many communities developed around the railroad. The railroad was considered essential to a community's growth and vitality. In recent years, though, alternative means of goods transport have been developed (i.e., long distance highway, pipelines, and barge traffic). Additionally, many communities have grown significantly in population and have developed diversified social and economic interests. The urban environment has changed. However, the location and general operational characteristics of the rail transportation system may have experienced little modification over the years. This incompatibility has brought a desire by some communities to relocate the rail system to a location more consistent with present-day urban needs and growth patterns. Care must be exercised in such proposals to ensure that proposed rail relocations are not a mere transfer of rail problems from one locality to another now or in the future. One aspect of present urban-rail problems has been the uncontrolled growth of communities around rail corridors. This growth has occurred in many instances during a period of rail traffic decline, and little consideration was given to the compatibility of such growth patterns to existing rail systems, especially with respect to potential future increases in rail traffic.

The feasibility of urban rail relocation projects is a matter of individual justification. At this time it is not possible to establish specific criteria except for the general considerations noted above. Rail relocation projects generally are very costly. They easily could range from $10 million to $100 million depending on the circumstances and as previously mentioned are generally only marginally cost-beneficial. However, from a transportation systems modification viewpoint they may be desirable in a number of instances.

Another important area to be considered during selection of alternative techniques is adverse impact on the involved railroad or railroads. Items such as railroad capacity, operating expenses, access to industrial development, and competitive relationships between railroads require careful evaluation.

D. Determination of Railroad Benefit and Railroad Share of Costs

Section 162 specifies study and investigation of

> (4) ... the proper share of the cost of implementation for each (alleviation) technique to be borne by the railroad or railroads based on the net benefit derived ...

General principles for the apportionment of costs for grade-crossing improvements are difficult to establish because of the unique impact of unit train traffic in each locale, the different amounts and distribution of costs and benefits associated with each of the many available improvements, and the subjectivity of quantifying many of the adverse impacts identified with coal unit train traffic, such as visual disruption and division of a community. A limited amount of precedent exists in law 1/ and Federal-aid highway legislation 2/ for the apportionment of costs for safety improvements constructed at crossings, but these principles have limited relevance for the broader non-safety considerations of environment, community development, and vehicular delay.

The four primary beneficiaries of increased coal traffic would appear to be (1) the originating shipper (including the locality and state where the coal originates), (2) the railroad transporting the coal for profit, (3) the particular community that uses the coal for electricity general or other purposes, and (4) the nation as a whole which benefits from decreased dependence on foreign energy supply. While the Department has not been able to develop a general rule for establishing the railroad's proper share of costs in a particular case, it has identified some of the significant issues which should be considered in apportioning costs for grade crossing improvements that mitigate the adverse impacts of coal unit trains. One consideration is whether to evaluate only the incremental traffic added by new coal trains in assigning benefits and costs, or whether the total traffic at that crossing should be considered. Much would depend in this case on the source of funding for any improvements.

Another major consideration is whether the need for a grade crossing improvement can or should be analyzed separately from the initial decision to coming new coal unit train traffic. It is arguable that of grade crossing improvements due to coal unit train traffic should be considered simply as a cost that new additional traffic, to be paid for directly from transportation charges. On the other hand, the variety of available improvements, the differences among community and highway user concerns, and the time lag between the increased traffic and the improvement, all make it difficult to calculate the costs of any improvement as a part of the decision to undertake new coal unit train traffic.

A related consideration is whether the dissatisfaction expressed by communities or highway users for values lost to coal unit train traffic (e.g., time delay at a crossing, esthetic and other environmental losses) should be rated uniformly on a national basis if Federal funds are used to alleviate them. While this study points out that communities vary widely in their perception of the magnitude of the negative impacts caused by rail movements, equity considerations may require some criteria for the effective use of Federal funds if a program were to be established.

The equity questions discussed above bear on the specific issue of what portion of future grade crossing improvement costs must be borne by railroads operating significantly increased coal unit train traffic. Comprehensive analysis of this question cannot readily be undertaken separately from the broader consideration of energy transportation policy.

1/ Nashville, C & St. L. Ry. v Walters, 294 U.S. 405 (1935); Atchinson, T. and SF. R.R. v. Public Utilities Commission, 346 U.S. 346 (1953).

2/ Title 23, U.S.C. 120, 23 CFR 646.210

E. Construction Costs of Separation Structures

In determining typical construction costs of a separation structure, the number of tracks to be crossed and the number of highway lanes are major factors which control bridge lengths and widths and thus directly affect construction costs. In addition, the decision as to whether the highway is taken over or under the railroad has a direct bearing on construction costs.

Tables 3 and 4 present typical estimated costs for construction of grade separations. These costs would include the bridge plus approach embankments and roadways. Costs for engineering and right-of-way are not included. Engineering, both for design and during construction, would increase total project costs relatively uniformly (about 15 to 20 percent). Right-of-way acquisition costs would be site specific and could vary widely between projects and, in particular for urban projects, may well exceed construction costs.

Table 3
Highway over Railroad
Typical Construction Costs
(Dollars in thousands)

	2 lanes	4 lanes	6 lanes
1 track	390	930	1,550
2 tracks	410	990	1,640
3 tracks	440	1,040	1,740

Table 4
Highway under Railroad
Typical Construction Costs
(Dollars in thousands)

	2 lanes	4 lanes	6 lanes
1 track	410	810	1,380
2 tracks	610	1,150	1,940
3 tracks	800	1,490	2,500

Based on Federal-aid highway projects completed during 1978, the average construction cost (excluding preliminary engineering and right-of-way) of a railroad-highway separation structure and approaches was approximately $1 million. These construction costs do vary considerably, however, (from about $200,000 to $4,500,000) since they are dependent on the number of highway lanes, whether the highway is over or under the railroad, and the amount of approach work needed. In addition, other costs for preliminary engineering, right-of-way acquisition, or unusual site conditions, can increase total project costs by two to three times above those mentioned above.

In the examples given of typical separation costs, the railroad tracks have been left at their existing grade and the highway taken either over or under the railroad. Although the highway could be left at its existing grade with the railroad tracks then being either elevated or depressed, this type of solution usually proves to be very expensive because of the long, relatively flat approach grades needed for railroad operation.

Although Section 162 did not request specific costs for other than grade separations, costs of various other alleviation techniques were discussed at the St. Louis Conference. Exhibit 5 indicates ranges of capital and operating costs developed by the conference participants for several techniques. Participants noted that these are general cost ranges which can vary greatly depending on site conditions. Specific site characteristics would be needed to develop more accurate cost figures. It should also be noted that what appears to be a low-cost technique to the community may, in some cases, incur substantial capital and/or operating costs to the railroad.

EXHIBIT 4

COST ESTIMATES FOR TECHNIQUES TO ALLEVIATE ADVERSE COMMUNITY IMPACTS OF UNIT COAL TRAINS

TECHNIQUES	CAPITAL COST RANGE (thousands of $s)	OPERATIONS COST RANGE (thousands of $s)
Rail Oriented Techniques		
Crossing Closures	0 - 500	0 - 100/yr.
Conspicuity (Coal Train Only)	0 - 500	no cor. costs
Improved Rail-Highway Warning Devices	20 - 500	5% increase per/yr.
Pedestrian Grade Separation	50 - 750	no opr. costs
Relocate Rail Siding	500 - 5,000	no opr. costs
Rail Rerouting	0 - 500	0 - 5,000
Increased Train Speed	0 - 1,000	100 per yr.
Vehicular Separation	1,000 - 50,000	-
Train Operation	0 - 40,000	0 - 1,000
Rail Consolidation	100 - 125,000	-
Rail Relocation	7,000 - 125,000	-
Community Oriented Techniques		
Stagger Work Hours	no cap. costs	0 - 100
Community Education	no cap. costs	20 - 100
Enforcement	no cap. costs	0 - 150
Public Transportation Routing	no cap. costs	20 - 500
Vehicle Rerouting	0 - 500	no opr. costs
Land Use Planning	no cap. costs	0 - 1,000
Duplicate Emergency Services	0 - 5,000	0 - 5,000
Adding Crossings	100 (no range)	25/per crossing
Highway Relocation	50 - 5,000	no opr. costs
Rail/Community Oriented Techniques		
Direct Communications (Rail/Community)	0 - 100	no opr. costs
Improved Rail/Community Relations	no cap. costs	0 - 500
Coordination of Highway/Rail Signals	0 - 750	100 per year
Improved Highway and Rail Geometrics	500 - 5,000	no opr. costs

Source: Report on the Unit Coal Train Community Impact Conference - August 1979

F. Information of Specified Rail Corridors

Section 162 also identified specific rail corridors to be considered in this study. Information on these corridors follows:

1. The Burlington Northern (BN) mainline from Beach, North Dakota, to Staples, Minnesota; from Staples Minnesota, to Minneapolis/St. Paul, Minnesota; and from Staples, Minnesota, To Duluth, Minnesota/Superior, Wisconsin.

   The Minnesota Department of Transportation and the North Dakota Highway Department are presently engaged in a joint study (Appendix A, p. A-20) which is examining this entire corridor. No need was seen at this time to expend additional Federal funds to duplicate this ongoing study effort which is being financed in part by the Department of Energy and DOT.

   Although the Minnesota-North Dakota study is not yet completed, the study has indicated that the majority of the communities along the corridor perceive that they are being adversely affected to some degree by increased train movements, and has identified a number of low-cost actions to be implemented as a demonstration to alleviate the impacts in six case study communities. Further conclusions of the study to date are presented in Appendix A.

2. The BN line from Joder, Nebraska, to Rulo, Nebraska; and the Union Pacific (UP) line from Scottsbluff, Nebraska, to Steel City, Nebraska.

   The draft environmental impact statement (EIS) for the Chicago and North Western Coal Line Project discusses these lines (see Appendix A, p. A-7 for summary of the draft EIS). The following comments briefly highlight information on the BN and UP lines.

The UP line in question runs through 38 communities between Gering and Steel City. Twenty-six of these are small towns of approximately 500 people or less, eight have 1,000 - 5,000 people, and four are large towns of 20,000 or more. These last are Gering-Scottsbluff, North Platte, Kearney, and Hastings. Between Joyce, Wyoming, and Topeka, Kansas, the UP crosses 509 public and 489 private grade crossings. Traffic at these crossings increases along the eastern portion of the rail line where the population density increases.

The BN line passes through the more heavily populated area of eastern Nebraska. Of the 80 communities on the BN in Nebraska, Iowa, Kansas, Colorado, and Missouri, the combined population is 690,000, but nearly two-thirds of the people are concentrated in Lincoln, Fremont, and Omaha. Besides passing directly through Lincoln, the BN passes through the smaller cities of Fremont, York, Grand Island, and Alliance and over 50 small towns. There are 621 grade crossings on the BN in Nebraska and eastern Wyoming.

In evaluating the impacts of train traffic on these lines, it appears that current levels of train traffic do not create extensive problems, but the future projected increases in coal traffic will have serious impacts. The problems center on blocked grade crossings which delay autos and emergency vehicles and cut off access to community services. At shown in Table 1, coal traffic in excess of 100 trains, which is projected for segments of these lines by 1991, can cause extensive delays. Also important are safety concerns for vehicles and pedestrians and environmental concerns over noise and air pollution.

In assessing the degree to which a community will be adversely affected, the draft EIS indicates that although the size of the town is an important factor, towns cannot be classified by size alone. While most small towns tend to be located on one side of the rail line and most large towns tend to have developed on both sides, individual towns will be affected differently depending on the relation between the rail line and land-use patterns in the area.

3. The Chicago and North Western (C&NW) line from Harrison, Nebraska, to Blair, Nebraska.

No specific study has been undertaken for this corridor. Since C&NW's present proposal involves hauling coal generally through the Union Pacific corridor, it is assumed the C&NW line between Harrison and Blair will not be upgraded and consequently will not carry significant tonnages of coal. The present trackage would require extensive upgrading before it would be satisfactory for handling significant tonnages of coal.

III. Conclusions

The following conclusions are based on the St. Louis Conference report and the other cited references.

1. Long trains moving over highway grade crossings, such as the typical 100-car unit coal train, can cause or aggravate a variety of community problems. Their major adverse impact is perceived by most communities to be motor traffic delays which cause disruption of essential community services, changes in traffic patterns within communities, and long queues at blocked grade crossings. These train movements can also cause increased motor vehicle and pedestrian accidents, inhibition of economic development, inability to develop in preferred areas, inability to maximize the use of public infrastructure (water, sewers, roads), and destruction of neighborhood and community socioeconomic cohesion.

2. Greater reliance on coal as a basic energy source and increased use of cleaner burning Western coal are two major features of our National Energy Program (NEP). As the nation moves towards its 1985 NEP production goals, which require a 30 percent increase over 1978 in the East and Midwest and a 300 percent increase in the West, coal train traffic will increase greatly.

3. Detailed information on the number of grade crossings that are or will be affected by coal train traffic is not available. Rough estimates are that between 1,500 and 1,800 urban places are

experiencing some rail conflict problems (March 1976 Report to Congress on Railroad Consolidation and Relocation in Urban Areas).

4. The problems associated with rail transportation of coal are not limited to unit coal train issues. A significant amount of coal is carried in mixed-load trains as well. Additionally, most urban rail conflicts are generally rail problems to which coal rail transport contributes in varying degrees. The heavy unit coal train movements in the West and Midwest are eventually distributed over the nation's rail system, where these trains combine with higher volumes of general merchandise trains. This mixture of train movements collectively causes most of the adverse impacts associated with coal rail transport.

5. Communities vary widely in their perception of the magnitude of impacts caused by rail movements. For example, a delay of a relatively small number of vehicles in a small community may be considered intolerable while a similar number of vehicles delayed in a larger community might be considered inconsequential.

6. The nature of the impacts and possible solutions are a function of the unique conditions present in each individual community adversely affected. It is not possible to determine the exact nature of impact or the most feasible and practical solution to a community problem without conducting a site-specific evaluation. To conduct a one-time national needs study for coal rail traffic would be a major undertaking requiring a substantial amount of time and resources. A number of States have, however, initiated their

own assessments. The Nebraska, Utah, and Colorado studies summarized in this report are good examples.

Additionally, the rail transportation system and the environment in which it is located is in a state of continuous change. Markets fluctuate and communities grow or decline. The rail transportation system will change to accommodate changing conditions in the same manner as other systems. As a consequence, the problems associated with the interrelationships of the rail system to its surroundings can be expected to vary over time and cannot be expected to be permanently resolved on a one-time basis.

7. Low-cost operational techniques such as better train scheduling or rerouting of traffic can be effectively employed in many instances to mitigate adverse impacts (see pps. 15-16 for listing of techniques). Which of these techniques is the most appropriate would depend upon the unique conditions present in any given area. Detailed analysis of each affected area would be necessary to determine which technique would be the most feasible.

8. Where low cost operational solutions are not feasible, delay and access problems could be ameliorated by more capital-intensive improvements such as grade separations or rail line relocations. These projects, especially rail relocation and consolidation projects, are very costly and sometimes only marginally cost-beneficial in traditional terms. They do result in correcting adverse impacts not associated with access and could result in improved rail systems in the urban area that are more compatible with urban planning needs and long-term growth objectives.

9. It is difficult to make generalizations on the benefits and costs of these techniques since they are largely dependent upon specific site conditions. However, in most cases low-cost operational improvements can be considered to be the most cost effective techniques, with rail relocations being the least cost effective. Any program designed to alleviate coal train impacts should ensure that such measures are fully considered and implemented where feasible before more expensive capital improvements are explored.

10. Establishment of criteria to determine when a problem is serious enough to justify a capital-intensive solution is difficult. At the St. Louis Conference several communities expressed dissatisfaction with traditional measures based purely on an exposure factor.

11. General principles for the apportionment of costs between the public and private sectors for grade crossing improvements are difficult to establish because of the unique impact of unit train traffic in each locale, the different amounts and distribution of costs and benefits associated with each of the many available improvements, and the subjectivity of quantifying many of the adverse impacts identified with coal unit train traffic, such as visual disruption and division of a community. A limited amount of precedent exists in law[1] and Federal-aid highway legislation[2]

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[1] *Nashville, C & St. L. Ry. v Walters*, 294 U.S. 405 (1935); *Atchison, T. and SF. R.R. v. Public Utilities Commission*, 346 U.S. 346 (1953).

[2] Title 23, U.S.C. 120, 23 CFR 646.210

for the apportionment of costs for safety improvements constructed at crossings, but these principles have limited relevance for the non-safety considerations of environment, community development, and vehicle delay.

12. In determining typical construction costs of a separation structure, the number of tracks to be crossed and the number of highway lanes are major factors which control bridge lengths and widths and thus directly affect construction costs. In addition, the decision as to whether the highway is taken over or under the railroad has a direct bearing on construction costs.

TYPICAL CONSTRUCTION COSTS*
($ in thousands)

Highway Over Railroad

	2 lanes	4 lanes	6 lanes
1 track	390	930	1,550
2 tracks	410	990	1,640
3 tracks	440	1,040	1,740

Highway Under Railroad

	2 lanes	4 lanes	6 lanes
1 track	410	810	1,380
2 tracks	610	1,150	1,940
3 tracks	900	1,490	2,500

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* Costs for engineering and right-of-way are not included. Engineering would increase total project costs by about 15-20 percent. Right-of-way acquisition costs vary widely between projects, and, especially for urban projects, may well exceed construction costs.

APPENDIX A

Appendix A presents a summary of the St. Louis Conference and summaries and/or status reports on several ongoing studies which address the coal train issue.

The following study efforts are included:

- Summary of Unit Coal Train Community Impact Conference (St. Louis Conference)
- Draft Environmental Impact Statement-- Chicago & North Western Coal Line Project
- Minnesota-North Dakota Study
- Colorado Studies
- Nebraska Study
- Utah Study

. Unit Coal Train Community Impact Conference

A 3-day conference was held in St. Louis, Missouri, beginning on July 25, 1979, the purpose of which was to assemble individuals knowledgeable on the coal train issue to discuss some of the major items raised by Section 162. The 36 participants involved in the conference represented a range of perspectives, including local communities, various State agencies or bodies, the railroads, a utility coal user, and individuals with a national perspective.

The conference was conducted by a consulting firm retained by DOT. Several structured sessions were held with the intent of obtaining full participation and interaction among the conference attendees. The conference activities and results have been documented in the consultant's study entitled Report on the Unit Coal Train Community Impact Conference, which is attached to this report. (See Appendix B)

The results of the conference discussions are presented below.

A presentation by a DOT representative provided estimates of future coal rail movements from the National Energy Transportation Study. Based on these estimates, by 1990 total rail shipments could approach 2 trillion ton-miles per year. This would amount to an approximate 230 percent increase over present levels. Nearly all of this very significant increase in shipments will be attributable to coal. In 1990 coal could represent 60 percent of total rail shipments in the United States. In 27 of the 48 lower States, coal shipments could equal or exceed 50 percent of all commodities shipped by rail within these States by 1990 on a ton-mile basis. In most of the others coal will represent a significant portion of rail shipments.

The participants developed an extensive list of the adverse community impacts that are or could be associated with unit coal trains. These adverse impacts were classified into the following major categories, the first five generally being considered of more importance.

Emergency Vehicular Delay
Vehicular Delay
Safety
Community Growth/Economic Viability
Severance of Community Services
Railroad Operations and Capacity
Environmental Considerations
Communications

The participants then developed a list of possible solution techniques which would in particular address the first five adverse impact categories. These solutions ranged from capital intensive techniques such as extensive rail relocations and grade separations to low cost techniques involving community/railroad communications and rail operational improvements. The conference participants felt that costs for many of the solution techniques were so site specific that further information would be needed before meaningful cost figures could be developed.

The discussion on establishment of measures or thresholds against which impacts might be compared to determine what, if any, solution technique could be used, resulted in broad, general statements of items to be considered such as:

Determination of magnitude of need
Determination of community desire
Determination of degree of effect on the railroad economy
Probability of implementation
Consistency with the goals and objectives of the funding program

This discussion seems to indicate that specific criteria, i.e., specific numbers or levels of measure, are most difficult to establish, particularly considering the diversity of the communities that might be encountering what they consider to be adverse impacts.

The discussion on criteria also began to focus attention on the issues of coal train versus train traffic in general and of magnitude of needs. In the previous discussion of impacts, it was evident that many of the adverse impacts associated with unit coal trains were not unique to unit coal trains but were in fact representative of conflicts between rail operations in general and communities. Several of the participants felt that this general rail/community conflict was the more pervasive problem and that a national program should be established concerning this more basic problem rather than a program to address adverse impacts associated only with one commodity, coal. In contrast several participants felt that many communities now confront serious problems as a result of substantial increases in unit coal train traffic and a national program should focus on the coal rail issue. They further felt that existing problems will be aggravated and more communities affected in the future due to projected increases in the volume of unit coal trains.

The answer to the question of magnitude of needs or quantifying the problem of rail/community conflicts appeared to be elusive. Generally there was no good grasp of the extent or magnitude of the nationwide problem, either for unit coal train traffic or general rail traffic. The participants felt some assessment of need would be required.

The final discussion concerned funding and establishment of a national program. It was generally felt that existing programs at all levels of government have been inadequate either in scope or in funds to alleviate adverse impacts of unit coal trains. The participants were in general agreement that if a national program were to be established to address adverse impacts of unit coal trains alone, the program should have the following characteristics:

- The program objective should be to resolve the variety of adverse impacts noted above. (Participants with the community perspective added that alleviation of adverse impacts in communities located in corridors experiencing increased train movement should receive top priority. Those with the railroad perspective reiterated their preference for a broader scope, including impacts due to new and existing rail traffic of all types.)

- Eligible projects should be as diverse as the feasible and cost effective solutions that can be identified.

- The Federal Government should be the principal funding agency (say 80 percent of funding responsibility) with a non-Federal share required. Although a variety of funding mechanisms were discussed, no consensus was reached.

- There was disagreement concerning the initial size of the program. The railroad approach to implementation would be to go slower, e.g., ensure that needs and priorities are identified and documented. Both the State and community groups recommended full immediate funding, particularly in corridors where projects could be implemented quickly, although they both saw the necessity of a needs assessment.

- Overall program responsibility would rest with the U.S. Department of Transportation. The States would play a lead role in planning, coordinating, fund allocation, project planning and approval, and general administration. Communities would participate heavily in documenting problems and in analyzing alternatives to resolve them.

- **Draft Environmental Impact Statement -- Chicago and North Western Coal Line Project**

The Chicago and North Western Transportation Company (C & NW) has applied to the Federal Railroad Administration (FRA) for loan guaranties for the C & NW's proposed coal line project. As a result, the FRA on July 20, 1979, issued a draft environmental impact statement (EIS) covering the proposed project. The following discussion highlights information contained in the draft EIS pertinent to the unit coal train issue.

The coal line project (see Figure 1) includes construction of 56 miles of new track between Crandall, Wyoming, and Joyce Station, Nebraska. This line would connect the C & NW's line through northern Nebraska with the Union Pacific Railroad (UP) line through southern Nebraska. If this segment is completed, coal shipments from the Powder River Basin originated by the C & NW would be delivered to the UP at Joyce Station and move over the UP system. If the Coal Line Project is not completed, the C & NW coal would be carried by the Burlington Northern (BN) over its existing lines.

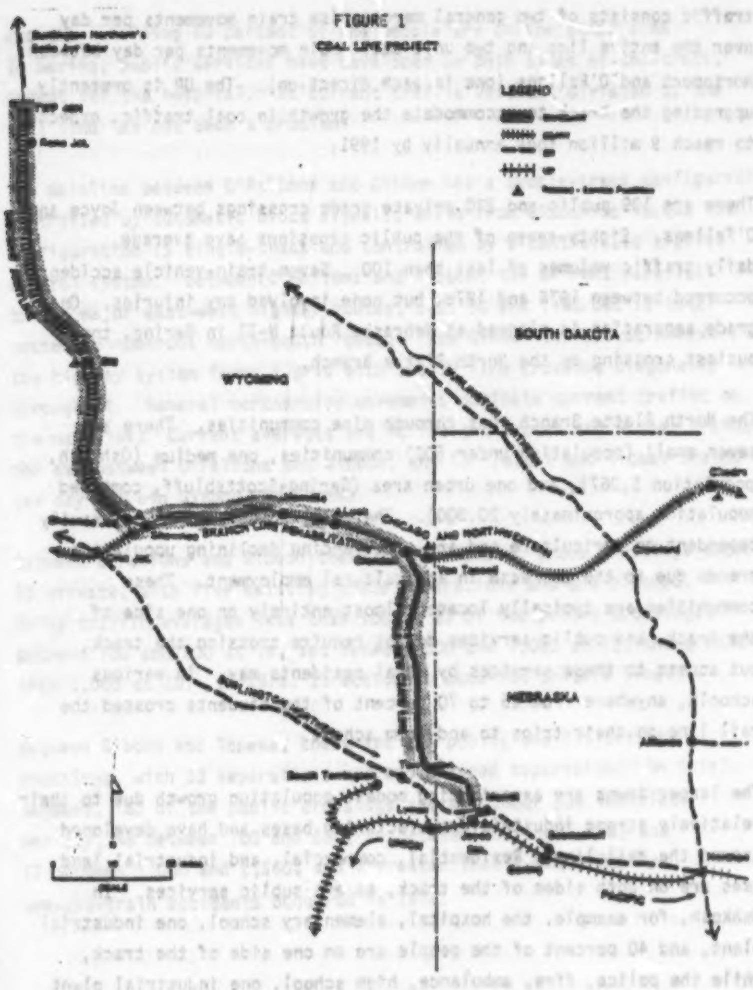
Union Pacific Line

The UP line under consideration consists of 164 miles of low-density branch line running east from Joyce Station to O'Fallons, Nebraska, where it joins the UP mainline to Gibbon, Nebraska, Topeka and Kansas City (at Gibbon, the mainline splits into two separate mainlines, one going to Omaha-Council Bluffs and the other to Kansas City).

The branch line from Joyce to O'Fallons, also referred to as the North Platte Branch, is a single-track, unsignaled configuration. Existing operations are limited to a maximum speed of 40 miles per hour, with slower limits in Gering, Northport, and Oshkosh. Currently,

FIGURE 1

COAL LINE PROJECT



traffic consists of two general merchandise train movements per day over the entire line and two unit coal train movements per day between Northport and O'Fallons (one in each direction). The UP is presently upgrading the track to accommodate the growth in coal traffic, expected to reach 9 million tons annually by 1991.

There are 109 public and 220 private grade crossings between Joyce and O'Fallons. Eighty-seven of the public crossings have average daily traffic volumes of less than 100. Seven train-vehicle accidents occurred between 1976 and 1978, but none involved any injuries. One grade separation is planned at Nebraska Route N-71 in Gering, the busiest crossing on the North Platte Branch.

The North Platte Branch runs through nine communities. There are seven small (population under 500) communities, one medium (Oshkosh, population 1,067), and one urban area (Gering-Scottsbluff, combined population approximately 20,000). The small towns tend to be heavily dependent on agriculture and are experiencing declining population trends due to the decrease in agricultural employment. These communities are typically located almost entirely on one side of the track, and public services do not require crossing the track, but access to these services by rural residents may. In various schools, anywhere from 25 to 70 percent of the students crossed the rail line on their trips to and from school.

The larger towns are experiencing modest population growth due to their relatively strong industrial/manufacturing bases and have developed around the rail line. Residential, commercial, and industrial land uses are on both sides of the track, as are public services. In Oshkosh, for example, the hospital, elementary school, one industrial plant, and 40 percent of the people are on one side of the track, while the police, fire, ambulance, high school, one industrial plant and the remaining 60 percent of the people are on the other side. In Gering, public services have developed on both sides of the track, except for the hospital. At current traffic volumes, division by the rail line has not been a problem.

The mainline between O'Fallons and Gibbon has a double-track configuration controlled by automatic block signals, while from Gibbon to Topeka the configuration is single-track and controlled by a centralized traffic control system. Between O'Fallons and Gibbon, the UP runs parallel to the major east-west highway routes, U.S. 30 and I-80, but is intersected by numerous north-south roads. From Gibbon to Topeka, however, the highway system forms a grid with the UP line crossing diagonally through it. General merchandise movements dominate current traffic on the mainline. Current averages are 48 freight trains and 9 coal trains per day between O'Fallons and Gibbon, and 18 freight and 4 coal trains per day between Gibbon and Topeka.

Between O'Fallons and Gibbon there are 123 public grade crossings and 53 private, with five existing grade separations and one planned. Daily traffic averages less than 100 at 83 of the public crossings, between 100 and 500 at 18, and between 500 and 1,000 at 12, and greater than 1,000 at 10. In 1978, 15 accidents occurred on this line.

Between Gibbon and Topeka, there are 277 public and 216 private crossings, with 33 separations and one planned separation. On this segment, 183 of the public crossings average under 100 vehicles per day, 48 between 100 and 500, 24 between 500 and 1,000, and 17 between 1,000 and 2,500, and 5 greater than 2,500. Twenty vehicle-train accidents occurred in 1978.

The UP mainline runs through 29 communities between O'Fallons and Steele City. Most of these communities developed as service, marketing, and shipment centers for adjacent agricultural operations, so their development has been closely tied to the railroad. The socioeconomic characteristics of these communities can be typified by their size. Nineteen of the towns are small, with population approximately 500 or less. These towns tend to be compact and located predominately on one side of the track, so rail traffic does not disturb internal circulation. Problems do arise from movements between small towns and from rural areas to small towns. None of these towns has a hospital, and ambulance service is provided to rural areas from the fire house in the town, so delays may occur in trips out to the rural area and to a hospital. This problem occurs primarily on the Gibbon-Kansas City segment.

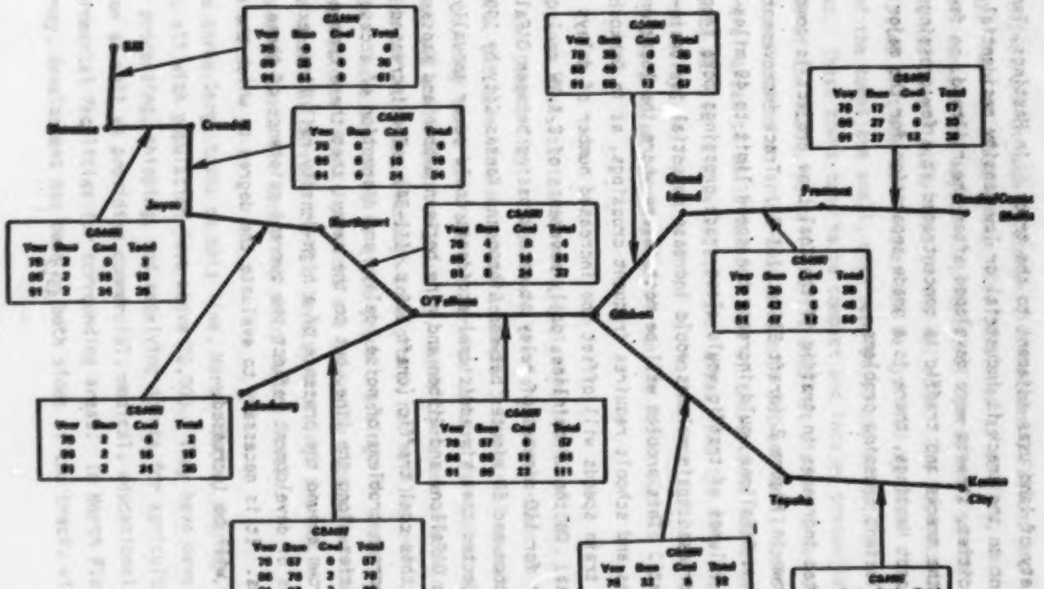
There are seven mid-size towns, with population 1,000 - 5,000, between O'Fallons and Steele City. These towns are largely dependent on agriculture, but have also attracted some small industrial operations. In addition, they serve as trade and service centers for surrounding rural areas and small towns. Typically, these towns are predominately on one side of the track, although some growth has spilled over to the other side. There are three to eight grade crossings in these towns, and no separations. Public services are generally located on the more developed side. At current traffic levels, crossings are not a problem but residents are concerned about future levels.

There are three large towns on this line, North Platte, Kearney, and Hastings, all with population just above 20,000. They have developed as major processing, shipping, and receiving points for agricultural production as well as providing commercial, medical, educational, and governmental facilities for surrounding areas. In North Platte and Kearney, development has been on both sides of the track, with a variety of land uses adjacent to the track. In Hastings, land use adjacent to the track is industrial or low-density residential. In these cities, streets were developed after the railroad, so few roads cross the tracks and traffic is concentrated at a few crossings. In all except Hastings, there is a grade separation for the major arterial, which lessens crossing problems.

Projected increases in traffic if the Coal Line Project is completed are shown in Figure 2 (draft EIS p. III-3). Track improvements between Joyce and O'Fallons would increase the speed limit to 49 miles per hour. Higher volumes of traffic would close grade crossings more frequently and increased train volumes would increase potential for train-vehicle accidents. This problem will be most severe where the location of services and schools requires frequent crossings, as in Oshkosh. The faster train speeds will offset the increased number of delays somewhat. On the UP mainline, daily movements of C & NW coal could account for 110 minutes of delay at each crossing between O'Fallons and Gibbon and 50 minutes between Gibbon and Kansas City by 1991. It is projected that six additional accidents could occur annually between O'Fallons and Gibbon and nine between Gibbon and Kansas City due to this coal traffic (draft EIS p. III-34). The increased traffic would worsen problems of noise, delay, and disruption of access in communities along the line, but to the extent that these communities have grown around the presence of a high-density rail line, existing patterns of development reflect the current existence of these problems. It is necessary to evaluate the degree to which the adverse effects will be increased.

FIGURE 2

TRAFFIC ESTIMATED OVER COAL LINE PROJECT AND UP MAIN-LINES



Burlington Northern Line

The other line designated for study is the BN line from Joder, Nebraska, to Rulo, Nebraska. Current and future flows of coal traffic on the BN are such that this line must be examined as part of the BN system rather than in isolation.

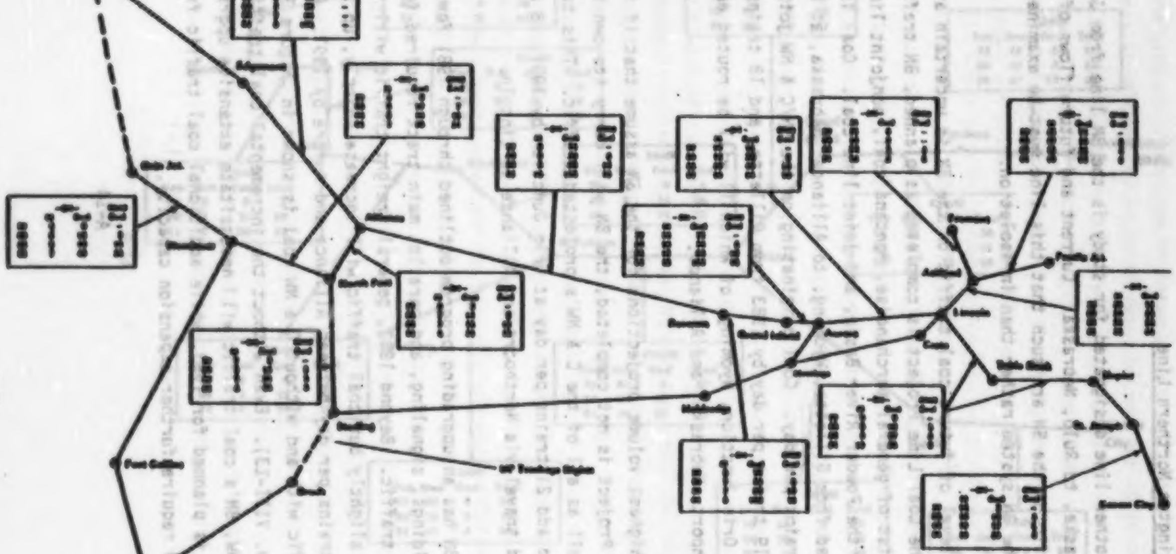
The level of future coal traffic on the BN is uncertain at this time. If the Coal Line Project is completed as planned, BN traffic will consist of general merchandise, Montana coal, nonjoint line coal from the Powder River Basin, and joint line coal. Coal is currently routed from Gillette, Wyoming, to Alliance, Nebraska, at a level of 14 trains per day. Coal originating on the BN/C & NW joint line will add 19 trains per day by 1983 from Gillette, and 18 trains per day from Orin Junction, Wyoming, of which 11 will be routed eastward via Northport, Nebraska, and Alliance.

The highest volume projections for the BN assume that if the Coal Line Project is not completed, the BN will carry its own traffic as well as all of the C & NW's projected traffic. This traffic would add 21 trains per day at Orin Junction by 1991, 18 of which would travel via Northport and Alliance to Lincoln.

The BN has an upgrading program outlined through 1981 for addition of sidings, signaling, and parallel main track required for increased coal traffic. Beyond 1983, general freight traffic will increase only slightly but coal traffic will increase sharply, up to 102 trains per day between Alliance and Aurora by 1991. Projected traffic with and without C & NW coal is shown in Figure 3 (draft EIS p. VIII-13). Even without the incremental coal traffic from the C & NW, BN's coal traffic will necessitate extensive upgrading beyond what is planned for 1983, while additional coal traffic from C & NW would require further expansion capacity.

FIGURE 3

BN—TOTAL TRAFFIC (TRAINS PER DAY) SHOWING IMPACT ON NUMBER OF TRAINS ON EACH LINE WITH AND WITHOUT CNW COAL



West of Alliance, traffic will increase to between 40 and 50 trains per day without C & NW coal, and to approximately 60 - 70 trains per day with C & NW coal by 1991. Upgrading to 25 percent double track would provide capacity of 50 - 55 trains while 50 percent double track would be needed to handle 70 trains per day. Between Alliance and Lincoln, traffic levels should reach 112 - 121 trains by 1991, requiring full double track with capacity of 75 - 125 trains per day for BN's base traffic. With additional C & NW traffic, 50 percent triple track would be required from Alliance to Grand Island and Aurora to Lincoln, with full triple track between Grand Island and Aurora. East of Lincoln, traffic splits, and the southern branch to Table Rock would require 25 percent double track, while the northern branch to Pacific Junction will require full double track.

The BN has plans to spend $837 million on coal-related projects between 1978 and 1982. The Coal Line draft EIS estimates that for BN's base traffic, additional requirements are $20 million by 1983, $14 million between 1984 and 1986, and $205 million between 1987 and 1991, totaling $239 million. In order to meet the capacity requirements for additional C & NW coal, requirements are projected at $8 million by 1983, $152 million between 1984 and 1986, and $47 million between 1987 and 1991. This results in an additional investment of $207 million to handle the incremental traffic, and a total investment of $446 million by 1991 above the $837 million currently planned.

The BN will require funding from external capital markets and the availability of this funding is uncertain. In addition, the desirability of allocating capital to these coal lines depends on capital needs for competing projects, particularly if the Interstate Commerce Commission does not permit compensatory rates on coal.

A direct impact of increased operations will be increased delays at grade crossings. The BN line crosses 621 grade crossings in Wyoming and Nebraska. Of these, 146 are signalized, with train speeds of 30 m.p.h. at 105 crossings and 45 m.p.h. at 41 crossings. Over one-half of the signalized crossings average fewer than 1,000 vehicles per day, but daily traffic exceeds 4,000 at 16 of the 30 m.p.h. crossings and two of the 45 m.p.h. crossings. Of the 475 nonsignalized crossings, 469 average fewer than 1,000 vehicles per day. Total delay at grade crossings is estimated at 198,375 hours per year by 1986 and 354,878 hours per year by 1991 on the BN line, but this is for all trains, not just coal. Incremental C & NW coal would add 38,384 hours per day by 1986 and 56,420 hours per day by 1991. Total accidents are forecast at 38 in 1986 and 65 in 1991 at the 621 grade crossings, with the incremental traffic adding six in 1986 and 14 in 1991.

The BN line passes through numerous small towns, several midsize towns and small cities, and Lincoln, Nebraska, a city of 150,000 and the State capital. In total the BN passes through more than 80 cities and towns in the States of Nebraska, Iowa, Kansas, Colorado, and Missouri. The combined population is about 690,000 persons, but 410,000 are located along the Lincoln to Pacific Junction segment. The socioeconomic effects on communities along the line can be evaluated by looking at a sample of these communities.

Although most small towns tend to be located completely on one side of the rail line, Greenwood, Nebraska (population 506), is bisected by the BN tracks. Approximately 40 percent of the population lives on the side of the tracks away from fire, ambulance, and police services. The other 60 percent is across the tracks from the school, and children currently walk across without patrols or signals. Estimates of delays due to increased traffic exceed 1,000 hours per year by 1991.

The impacts on midsize towns differ according to the position of people and services in relation to the track. In Alliance (population 6,862) the track skirts the borders of the town and disruptions and delays should not be a problem. Other midsize towns are also located primarily on one side of the track, but others are bisected, such as Broken Bow, Nebraska. In Broken Bow (population 3,734), 50 percent of the population is across the track from all emergency services, a major concern of the town's citizens. Forecasted delays from BN traffic of 3,185 hours per year by 1986 and 5,754 by 1991 would be further increased to 3,800 by 1986 and 6,680 by 1991 with the incremental C & NW coal traffic. The citizens of Scottsbluff (population 14,507) are concerned with delays and dangers to pedestrian traffic and school children, who are less able to responsibly avoid accidents than motorists. In Scottsbluff, delays are projected to exceed 21,000 hours per year by 1991 and 30,000 if C & NW coal is carried by the BN. Delays in Grand Island (population 31,269) are also projected at about 20,000 hours per year by 1991, but local officials feel that BN traffic is fairly well scheduled to avoid blocking grade crossings.

The impacts of increased coal traffic in the Lincoln area are judged to be a major problem, according to numerous newspaper articles and an environmental impact statement prepared for the Lincoln Railroad-Highway Crossing Demonstration Project, a project eligible for funding under a program administered by the Federal Highway Administration.

The degree to which impacts will be felt in towns along the BN lines will depend on the extent to which coal traffic increases, which is very uncertain at this time. In general, direct impacts will be long-term in nature and will consist primarily of increased accidents, greater delays, and obstructions to emergency and public services.

Lesser impacts will be felt in terms of noise and air pollution. The majority of impacts would be mitigated by grade-separated rail-highway crossings, but the funding responsibilities for any separation program would affect the extent to which it could be implemented.

MINNESOTA-NORTH DAKOTA STUDY

The Minnesota Department of Transportation and the North Dakota State Highway Department have undertaken a joint study to identify community problems resulting from railroad operations and community activity conflicts, and to develop low-cost ways to resolve these problems. The study corridor is the Burlington Northern Railroad mainline corridor from Beach, North Dakota, to Fargo/Moorhead, from there to Staples, Minnesota, and then branching to Minneapolis and Duluth/Superior. The BN's traffic projections for the mainline show increases of 4 to 40 percent by 1983. Current traffic is 6 freight and 13-14 coal trains per day west of Casselton, ND, (near the eastern border of the state) and 19-22 freight and 3-7 coal trains per day east of Casselton. By 1983, coal traffic will increase by 2-3 trains per day while freight trains increase by 0-1 trains per day.

The study consists of a three-phase work program, as follows: identification and location of problems; identification of low-cost solutions; and implementation and evaluation of solutions. To date, the first phase has been completed and the second phase is near completion.

The first phase of the work generated the following conclusions: Communities throughout the corridor are experiencing seven basic types of problems: (1) pedestrian safety, (2) vehicle safety, (3) emergency vehicle delays, (4) delays traveling to and from work and school, (5) delays traveling to and from business and social activities, (6) environmental disturbances, and (7) community development problems. All communities for which data were obtained experience at least one of the problems and many of the communities experience several.

Corridor-wide, emergency vehicle delay and vehicle safety are perceived to be the most serious problems. The extent and severity of these problems vary considerably from community to community. Further, the relatively severe problems are not concentrated in a small group of communities. Rather, the list of most severely affected communities varies by the type of problem being considered.

Those adverse impacts are not caused solely by increased coal train traffic, but are the result of the interaction of a variety of community characteristics, railroad operations and rail facility characteristics. Similarly, projected growth in both railroad operations and community size and development patterns suggest the problems will increase in severity in the future.

In the second phase of the study, six communities along the corridor were selected as case studies. Through the work in Phase I and further discussion with officials from the case study communities, a list of actions warranting examination as potential low-cost ways to reduce the priority problems confronting each community were identified. From this list, twenty actions or sets of actions have been selected as demonstration projects. They include community-oriented techniques such as community/railroad emergency communications systems and improved warning devices at crossings, and railroad-oriented actions such as increased train speeds and improved switching. The total capital cost to implement the projects is $3.2 million, with individual project costs ranging from less than $1,000 to $800,000, and a median cost of $60,000.

The work completed thus far indicates that these and similar techniques will have a substantial effect in alleviating adverse impacts. The demonstration projects will reveal more precisely the degree and scope to which low-cost solutions will be effective in communities along this corridor and other similarly affected areas.

The final phase of the study is to implement and evaluate the demonstration projects. To date, about eighty percent of the required funding for the demonstration has been committed by the two states and the railroads. The principal source of the State funding is the Federal-aid highway program administered by the states. The communities generally have no direct funding available, but are making in-kind contributions including the closing of crossings, the provision of volunteers, and the willingness to act as demonstration areas. Funding for the remaining twenty percent is a major concern of the sponsoring states, since existing funding sources have been exhausted. There is also concern about the ability of existing funding sources to satisfy needs at other than a demonstration project level.

One conclusion which has already been reached is that, even if it were practical to divert railroad operations away from corridor communities, this would not be a favored strategy. The communities recognize that the railroad has played, and will continue to play, a vital role in their development and well-being. Eighty percent of all respondents to the survey stated that their community benefits from railroad operations. Even in the most severely affected communities, the percent of respondents stating that their community benefits from railroad operations is high (not less than 65 percent). While corridor residents want to resolve the problems created by the conflict between railroad operations and community activity; they do not want to lose the benefits accruing to them as a result of rail service in their communities.

Colorado

Coal Train Study

Introduction

During the review process of the Colorado State Rail Plan with the Legislative Committee on Energy and Transportation, it was felt that a bolder approach to addressing the coal train problem in Colorado was needed than just a normal railroad-highway crossing separation program. They viewed a crossing program as more of a "band-aid" type solution. As some preliminary bypass investigations and appraisals had been made, it was felt appropriate to continue with a study which more fully assesses the feasibility of building a rail bypass route to handle the principal coal movements through Colorado so as to mitigate expected major impacts of coal train traffic in the coming years. The report on this study entitled Colorado State Rail Plan - Rail Bypass Feasibility Study was issued in September 1979.

Study Approach

The feasibility study focuses on the north-south movement of coal (Front Range Corridor) which represents the predominant movement by rail of coal through Colorado. Coal movement patterns within Colorado are projected to the year 2000. This projections estimates year 2000 Wyoming-Texas coal train movements at 39 per day. This coal train movement would then be superimposed on year 2000 general commodity train movements which are estimated from 7 to 44 train movements per day depending on the segment of the corridor. The study does point out in a very difficult task to project future coal movements considering the multitude of variables involved.

A comprehensive review is made of several alternates in terms of community and environmental impacts with four alternates then being selected for detailed economic evaluations. The study develops methodology for ranking and weighing community impacts, identifies environmental factors for consideration, and presents procedures (mainly developed from DOT sources) for determining detailed cost evaluations.

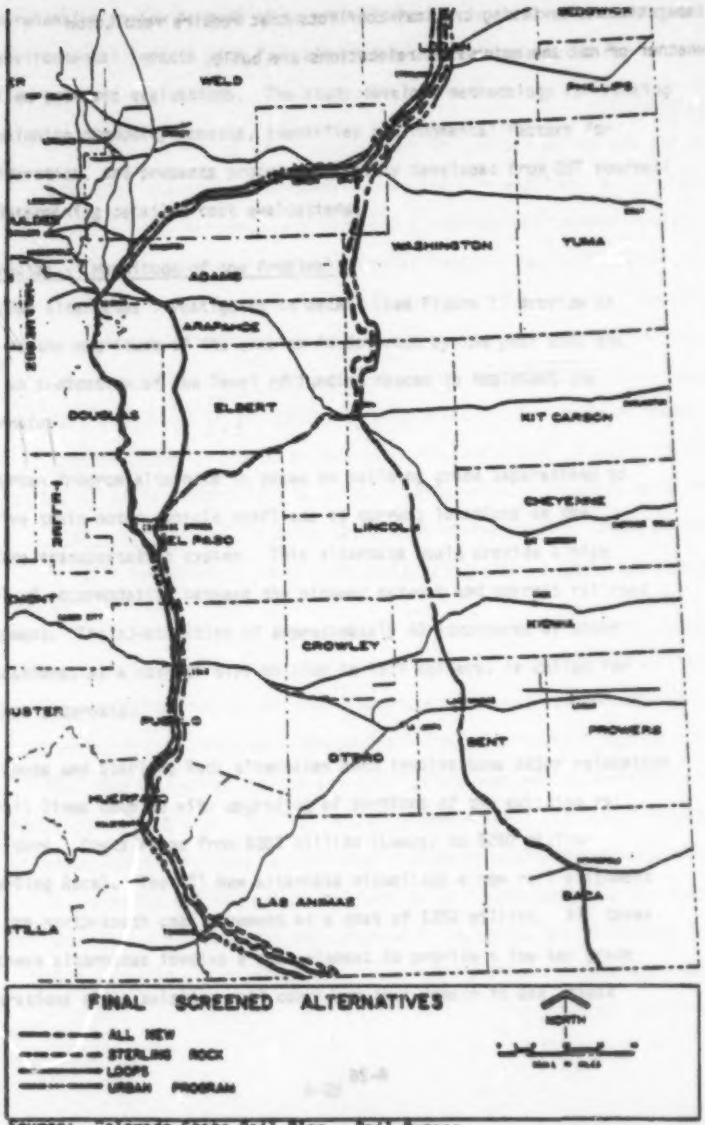
Alternates - (Magnitude of the Problem)

The four alternates investigated in detail (see Figure 1) provide an idea of the magnitude of the problem in Colorado by the year 2000 and give an indication of the level of funding needed to implement the alternates.

The Urban Program alternate is based on building grade separations to resolve train-motor vehicle conflicts at current locations on the surface transportation system. This alternate would provide a high level of accommodation between the highway network and current railroad alignment. The construction of approximately 40 structures or minor relocations, at a cost of $199 million in 1979 dollars, is called for by this alternate.

The Loops and Starling Rock alternates both involve some major relocation of rail lines coupled with upgrading of portions of the existing rail corridors. Costs range from $208 million (Loops) to $260 million (Starling Rock). The All New alternate visualizes a new rail alignment for the north-south coal movement at a cost of $352 million. All three of these alternates involve a cost element to provide a few key grade separations along existing rail corridors that remain in use, these

separations alleviating critical conflicts that require resolution whether or not the major rail relocations are built.



Source: Colorado State Rail Plan - Rail Bypass Feasibility Study, September 1979.

Figure 1

. **Nebraska Study**

The State Rail Plan being developed by the Nebraska Department of Economic Development has an element that will deal with coal train impacts on communities. The study of coal trains will involve preparing estimates of coal train volumes into and through Nebraska, both existing and projected to 1985 and 1990. Grade crossings along the coal routes are to be identified and the grade crossing implications of increased coal haulage evaluated. There will be an identification of the types of adverse impacts and the types of adversely affected communities and regions. Finally, there is to be an identification and assessment of alternative methods of assisting local communities to deal with the adverse impacts of coal train movement.

The Study has taken the data that were already available and supplemented them with a limited number of field inspections in sample communities. Data collection has been completed and a draft report is being prepared.

Utah Study

The Utah Department of Transportation has conducted a study of existing and projected unit coal train movements in Utah and their impact on 20 State highway crossings. A report entitled *Utah's Unit Coal Trains - Today and Tomorrow* was issued February 1980.

The study plan examined rail corridors handling coal mined in Utah and being transported to power plants within Utah and also to the east towards Denver and to the southwest towards Los Angeles. This initial analysis was directed at 20 selected rail crossings of State highways with the recognition that at some time in the future an extensive, in depth analysis should be made of each community along the unit coal train network.

At the selected crossings existing unit coal train volumes were found to vary between about one to six trains per day. Several scenarios were developed to project future train movements with the highest resulting in increases up to a total of 46 unit coal train movements per day at certain crossings.

Assessments were made at each of the 20 selected crossings to determine if action, namely grade separation, was justified. The assessment criteria included such items as delays, accident costs, exposure factors, construction costs, benefit-cost ratios, and community disruption.

The study concludes that based on benefit-cost and exposure factor data, no grade separations appear justified at any of the crossings at the present time. The study makes no recommendations for improvements based on factors such as community disruption. The study further notes that serious impacts could occur in the future if unit coal train volumes increase and suggests continued monitoring of the situation.

WRITTEN TESTIMONY OF

James W. Shannon, President

CHEM-CRETE CORPORATION
Menlo Park, California

on S. 2913

before the

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Washington, D.C.

September 9, 1980

I. SUMMARY

Chem-Crete Corporation is a research, development and marketing company with its principal office in Menlo Park, California and is engaged primarily in the unique chemistry of asphalt.

Chem-Crete has discovered and patented a chemical process employed at the refinery which on an economically attractive basis dramatically enhances the molecular structure of asphalt and, thusly, all of its key properties. In general, our process results in increased performance of 100-200% at a mix (i.e., asphalt with aggregate) cost increase of 3% to 4% when supplied in commercial quantities. The new modified asphalt is handled, stored and laid in the same manner as conventional asphalt. Moreover, because our process effects a molecular change in the asphalt, it is irreversible and produces no environmentally undesirable side effects.

The Chem-Crete process has been technically successful. However, its expeditious use on a commercial scale, which will result in federal savings of billions of dollars in RRR expenditures, is thwarted by increasingly limited federal funding available to encourage innovation and other institutional barriers at the state level. Accordingly, with the view of eliciting action at the federal level, we first introduced our process to the Congress in testimony before the subcommittees on transportation of the House and Senate committees on appropriations in April 1980. On May 19, 1980, as a follow-up to earlier presentations to the Federal Highway Administration ("FHWA") staff, we made a presentation to the Administrator, Mr. Hassell.

These and other efforts have resulted in language in the Senate Report on the Department of Transportation 1981 Appropriations bill (HR 7831) which recommends that this Committee include in S2913 an authorization for the Secretary of Transportation, acting through the Federal Highway Administrator, to appropriate discretionary funds to the states to advance the use of pavement materials produced by "innovative commercial technologies." The precise report language is as follows:

- "The Committee is aware of newly developed chemical processes which could significantly improve asphalt and asphalt mix properties, both with respect to strength and permeability. The Committee recognizes and encourages the continuation of the ongoing efforts of the Federal Highway Administration to demonstrate such products and processes, but recognizes that Federal and state procurement regulations may inhibit innovation due to the lack of life-cycle cost criteria and the dictates of low capital bid requirements.

  In order to overcome these institutional threshold barriers, the Committee calls attention to the fact that the Committee on Banking, Housing, and Urban Affairs authorized the Secretary of Transportation to make UMTA grants for projects for the deployment of innovative techniques and methods in the management and operation of public transportation services under the provisions of the Federal Public Transportation Act of 1978 (PL 95-599, Title III, Sec. 303 (i)).

  In the judgment of the Committee, similar authorization for the Administrator of FHWA would be appropriate to stimulate the commercial use of these technologies that are past the research and development stage, but for the reasons stated are not in significant commercial use.

In furtherance of the Congressional intent expressed by the quoted language, Chem-Crete Corporation respectfully suggests that this Committee include in S2913 an authorization commencing with at least $15 million in FY 1982 and increased by $5 million for each year of the legislation and appropriate legislative language to reflect the bases for and provisions outlined in Section III of this testimony.

II. Chem-Crete Modified Asphalt

1. Background and Status

To date, Chem-Crete's process has been a technical success with our performance claims confirmed without meaningful challenge. The Chem-Crete process is recognized by the FHWA and growing numbers of state highway officials as the most innovative advance in pavement material technology in years and likely to significantly contribute to the reduction in the life-cycle costs of asphalt pavements.

FHWA has formally endorsed to the states the use of asphalt modified by the Chem-Crete process (see Attachment 1). To date, 22 states have confirmed our claims in laboratory tests and an additional 13 states are in the process of testing. However, only 9 states have pavements projects employing small quantities (typically 20 to 60 tons) of our modified asphalt (see Attachment 2). Eight (8) states have specified projects, and we expect an additional 18 states will have projects by next summer. Internationally, pavements have been successfully laid in Austrailia, British Columbia, Saudi Arabia, Syria, Kuwait and Nigeria. Petrofil has been licensed in the Phillipines and is conducting field tests. We expect to conclude soon a license in Mexico for that market.

The U. S. Army Corps of Engineers has just issued its draft report confirming Chem-Crete's process claims which we will provide to the Committee once it is officially released.

Chem-Crete is currently discussing with several major oil refiners their interest in licensing our technology which would be available to all asphalt refiners. But the refiners have clearly indicated that they must see significant demand in the marketplace before they will conclude a license.

In spite of Chem-Crete's technical success, it is highly unlikely significant commercial quantities of Chem-Crete modified asphalt will be used by the states within the next 3 to 5 years, unless funding problems are overcome. Chem-Crete modified asphalt is new and will result in an estimated 3% to 4% increase in the total mix (asphalt plus aggregate) cost of laid asphalt pavement. As a result, efforts to expedite wide-spread use of the process and resulting improved asphalt on a commercial scale have been and will continue to be frustrated for several years. The principal impediments to commercial use include:

- A lack of broad political perspective on the potential threat to existing and potential safety, cost and other problems which will invariably result from our rapidly deteriorating national highway system;
- Institutional lethargy, a general reluctance to accept innovation and to focus on life-cycle costs at the state level.
- The reluctance of the states to spend funds for longer-term solutions when existing pavement programs and jobs are threatened by decreasing federal funds.
- Federal and state procurement regulations which inhibit innovation by emphasizing front-end low capital costs, etc.
- The absence of and lengthy procedures to adopt pavement performance specifications.

2. The Chemistry

The Chem-Crete process is a chemical process which enhances the molecular structure of asphalt.

It is well established that asphalt forms itself into molecular sheets or platelets which slide over one another giving the asphalt its flexibility and self-healing properties. These platelets are held together only by hydrogen bonding, which is a very weak type of bonding. It is this structure that gives asphalt its temperature susceptibility which is the key defect of normal asphalt. The Chem-Crete process ties together these platelets with an extremely strong and irreversible bond. This new bond, gives asphalt great strength in a new direction. In this regard it is much like a "cross member". It is this new "cross member" that is responsible for the remarkable properties of the Chem-Crete modified asphalt.

The key to this new and unique chemistry is the formation of ketones, which are known for their great adhesion, followed by the formation of the complex that is the basis of this new bonding. This thin-film chemistry is actually antioxidation in its nature as the process uses those sites which would normally oxidize. It is for this reason that we are favorably affecting the durability of the asphalt.

3. The Effect of the Chem-Crete Process

Since this process involves thin-film chemistry, no changes occur until the asphalt is put in place on an aggregate, i.e., stone, sand, fly ash. For this reason, there is no change in any procedures from the refinery to the paving operation. Once in a thin-film, the chemistry commences achieving approximately 80% of its eventual bonding after one month with the balance of bonding becoming complete after approximately three months cure time. Because of the additional "cross member", all of the key properties of the asphalt mix are enhanced by 100-200%. These properties include compressive strengths, tensile strengths, durability, stability, fatigue, temperature susceptibility and moduli. In addition, because of the formation of ketones, the adhesion and the anti-stripping properties are dramatically improved. In general, the Marshall stabilities will double with equal or better flow properties.

The most important single advantage of the Chem-Crete process is the radically reduced temperature susceptibility of road mixes. The process increases high-temperature strength and not low-temperature strength. For the first time authorities will be able to use soft asphalts in order to gain the cold weather properties that are needed without losing high-temperature stability. It is therefore no longer necessary to compromise in the choice of asphalts.

Tests confirm that Chem-Crete modified asphalt will support ten times the number of axles as conventional pavement of the same design. Several recent technical results from independent sources have confirmed the benefits of Chem-Crete processed asphalt over conventional asphalt (see Attachment 3).

4. The Economic Advantages

The economic impact of this new modified asphalt will be great because it will:

- Allow the use of ingerior aggregates. Because of the great strength developed, the choice of aggregates is no longer as critical as before, and many cheaper mixes can be used with resultant savings.

- Allow thinner pavement designs because of the great strengths and flexibility of the modified asphalt. Using the Shell Rationale Pavement Design Procedure, this new asphalt will safely allow a reduction of 25% in pavement thicknesses.
- Provide longer pavement life because of its strength and durability. Specifically, rutting as well as cracking will be greatly reduced.

Based upon RRR costs modestly projected by FHWA in its 1977 report to Congress, the Chem-Crete modified asphalt would save the Highway Trust Fund an estimated $3.37 billion prior to 1996 without reducing the miles to be paved.

III. The Requested Legislation

We respectfully suggest the Committee include in S2913 provisions the intent, purposes and technical aspects of which we believe can be most intelligibly expressed in outline form as follows:

Objective: To provide a financial catalyst for the states to purchase highway pavement materials produced by means of "innovative commercial technologies".

Facts Dictating Program:

- Highway RRR needs will exceed the yearly authorization of trust fund revenues for the forseeable future; thus, shrinking federal budgets dictate innovation is essential.

- Quantity and the quality of asphalt will deteriorate as oil refinery "cracking" of barrel bottoms intensifies.
- It is inevitable the quality of our highways will become a public issue as travel becomes less comfortable, vehicle repairs increase and public safety is at stake.
- Innovative commercial-stage technologies now exist to significantly lessen these problems.

Program Theme: Innovation in pavement materials resulting in lower costs: either initial capital or life-cycle costs.

Highway Pavement Program:

Only pavement materials produced by "innovative commercial technologies" qualify.

- "Innovative": the technology advances prior art (presumed so if a U.S. patent issues) and is likely to significantly increase the performance of the mix resulting in reduced life-cycle costs.
- "Commercial": the private or government funded R&D and experimental work has been substantially completed and only the use of the materials in commercial quantities in the construction of highway pavements remains.

Program Administration:

- Program will be administered in DOT Secretary's discretion; delegated to FHWA Administrator.
- Funding: an incremental amount of funds for life of legislation, beginning with at least $15 million for FY 82; increased by $5 million each fiscal year thereafter; available solely to facilitate the states' purchase of the materials; not subject to lapse; applies to the entire federally aided highway system.

- Program procedure and characteristics:
  - The Administrator determines whether the technology or product is "innovative and commercial".
  - The Administrator actively invites participation of state DOTs.
  - Total project costs will be covered according to the appropriate categorical match ratio (75 - 100%).
  - Sole source procurement will be permitted in the public interest.
  - The project emphasis will be on differences in climate, traffic and use of various aggregates (stone, sand, fly ash).
  - The purchase of proprietary products and materials will be allowed in the public interest.

[illegible]

UNITED STATES GOVERNMENT
Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Washington, D.C. 20590

Date: SEP 20 1979

In reply refer to: HHO-33

Subject: Chem-Crete - A Process to Improve the Properties of Asphalt Cement and Asphalt Mixtures

From: Director, Office of Highway Operations

To: Regional Federal Highway Administrators, Regions 1-10
Regional Engineer, Region 15

On August 10 we met with representatives of the Chem-Crete Corporation of Menlo Park, California. The meeting was requested by the Chem-Crete Corporation to discuss the merits of a new process called Chem-Crete Bitumen that improves asphalt and asphalt mixture properties.

Attached is one copy of literature furnished us by Chem-Crete Corporation. Of particular interest, are the following claimed benefits:

1. Asphalt and asphalt mixture physical properties are improved, but not changed to the point where special tests or specifications would be required.

2. Mixture properties are improved where our most recent concerns are focused, i.e., less temperature susceptibility, improved anti-stripping properties, improved stability at the same flow, reduced rutting, and much improved properties of sand asphalt mixtures.

We note that considerable laboratory work has been completed by Chem-Crete Corporation. Field installations have been completed and are being monitored in the Mid East and Australia.

As you know, we are experiencing problems across the country which have triggered a nationwide survey on asphalt and asphalt mixtures. Products or processes such as Chem-Crete Bitumen that appear to improve asphalt and asphalt mix properties are worthy of further evaluation.

There is a need for more laboratory information and field experience with Chem-Crete Bitumen in this country. States should be encouraged to try this product in their laboratories with their local materials. We also would encourage experimental construction with test sections long enough to permit periodic evaluation, including deflection measurements. Sections exposed to cold weather conditions would also be desirable.

A control section using the unaltered asphalt should be constructed either under the same contract or at least under similar conditions.

Under separate cover, Mr. James E. Shannon, President of Chem-Crete Corporation, is sending each of you sufficient copies of the literature for each of your division offices.

For further details on Chem-Crete Bitumen, contact Mr. John J. Carroll or Mr. Jim Hawley at (202) 426-0420.

SLaHue

Sanford P. LaHue

Attachment

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Washington, D.C. 20590

UNITED STATES GOVERNMENT

memorandum

Date: MAY 30 1980

Reply to Attn. of: HHO-33

Subject: Chem-Crete - A Process to Improve the
Properties of Asphalt Cement and Asphalt
Mixtures

From: Director, Office of Highway Operations

To: Regional Federal Highway Administrators
Regions 1-10, Regional Engineer, Region 15

Please refer to our September 20, 1979, memorandum on the above subject in which we encouraged laboratory work and experimental construction using products such as Chem-Crete Bitumen. We are told that laboratory work has been completed in 10 States and a test section in one State. No unusual construction problems were encountered on the test section. About 15 test sections are expected to be placed this construction season and another 20 next construction season.

Attached are copies of recent test results from a number of States showing that the claimed improvements in the mix are proving out using a variety of materials, according to laboratory tests. It is recommended that States be encouraged to perform additional tests such as listed below.

1. Creep, resilient modulus, and fatigue tests.
2. Marshall stability, and flow from cores taken periodically.
3. Penetration, viscosity, and ductility data on the original Chem-Crete Bitumen and after the thin film oven test.

Construction of experimental projects with Chem-Crete Bitumen is eligible for Federal-aid funding under the provisions of FHPM 6-4-2-4. Also, HPR funds, if available, are eligible for laboratory and field evaluation.

We understand some States have elected to place reduced thickness sections. We are not encouraging reduced thicknesses until some performance comparisons at the normal thickness have been made. The section of reduced thickness should be relatively short in length, but long enough to provide meaningful followup information. Except for short sections placed for experimental purposes, requests for pavement thicknesses outside the limits determined by our pavement design policy, FHPM 6-2-4-1 should be submitted to Washington Headquarters.

Sanford P. LaHue

Attachments

ATTACHMENT 2

A. COMPLETED LAB TESTS

Alabama
Arkansas
Arizona
Colorado
Florida
Georgia
Iowa
Idaho
Louisiana
Maine
Mississippi
New Hampshire
New Jersey
Nebraska
Ohio
Oklahoma
Oregon
Pennsylvania
South Carolina
Tennessee
Virginia
Wyoming

B. LAB TESTS IN PROCESS

California
Delaware
Hawaii
Illinois
Kansas
Kentucky
Maryland
Massachusetts
Missouri
North Carolina
Utah
West Virginia
Wisconsin

C. PAVEMENT PROJECTS COMPLETED

Arizona
Illinois
Iowa
Nebraska
Nevada
New Hampshire
Oklahoma
Virginia
Wyoming

D. PAVEMENT PROJECTS IN PROCUREMENT STAGE

Colorado
Delaware
District of Columbia
Maine
Oregon
Pennsylvania
West Virginia
Wisconsin

ATTACHMENT 3

TECHNICAL BULLETIN

August 4, 1980

Recent research results on Chem-Crete processed asphalt compared to untreated asphalts are answering a number of questions concerning the benefits of the Chem-Crete Process:

Allowable Strain

Physical tests of asphalt mixes conducted by numerous State laboratories confirmed a significant gain in strength for an equal or greater strain limit. These improvements have been documented over a temperature range to include an upper temperature limit that pavements will sustain in situ (60°C).

Mix Stiffness vs. Temperature

One area of current research is directed to comparing cold weather properties of Chem-Crete processed asphalt and untreated asphalt. Constant-stress creep tests were performed and mix stiffness computed over a temperature range of -20°C to +60°C. At high temperatures, as has already been shown, Chem-Crete processed asphalt mixes had a significantly higher stiffness than the untreated asphalt mixes. At approximately 0°C and lower, the stiffness of Chem-Crete processed asphalt mixtures and the untreated mixes essentially coincide. These results suggest that a softer asphalt with Chem-Crete processing could be used to advantage for improving cold weather performance.

Limiting Temperature

Using a limiting asphalt stiffness of 1.38 times 10^8 N/M^2 suggested by R. J. Schmidt results from indirect tensile creep tests limiting temperatures were evaluated for several penetration grades of asphalt both with and without Chem-Crete processing. Limiting temperatures are comparable, being within the tolerance of the method. Specifically, the asphalts ranged from 40-50 pen to 200 pen. The limiting temperatures of the Chem-Crete processed asphalt varied from less than 1°C to a little over 2°C higher than the same grade of untreated asphalt at a limiting temperature of about -25°C.

Fatigue

Initial indirect tensile fatigue test results demonstrated the cyclic strain tolerance of Chem-Crete processed asphalt. In tests at room temperature and 25% of ultimate stress done at the University of Texas by Tom Kennedy, a specimen prepared with untreated asphalt failed at approximately 7,100 cycles whereas testing of a specimen prepared with Chem-Crete processed asphalt was stopped after the specimen successfully completed 500,000 cycles.

John B. Leonard, Jr.
Chem-Crete Corporation

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John B. Leonard, Jr.
Chem-Crete Corporation

1955 1980
celebrating a silver anniversary of service to the hot-mix industry

napa

national
asphalt
pavement
association

[illegible]

John Gray
President

September 12, 1980

Senator Lloyd Bentsen, Chairman
Subcommittee on Transportation
Committee on Environment and Public Works
4204 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

The members of the National Asphalt Pavement Association (NAPA) appreciate the opportunity to submit comments for the record regarding S. 2913, the Federal Aid Highway Act of 1980.

We have respectfully preferred to call the Act "The Good Roads Bill," and are pleased to support your timely efforts to survey the alternatives for funding America's highway programs.

We are thoroughly convinced Americans want good roads. They are keenly aware of the integral role highways play in their lives and, as taxpayers, are willing to pay to have good roads - safe and well maintained.

Again, we congratulate the Subcommittee for its efforts, and we look forward to an active part in further discussions in support of The Good Road Bill.

Sincerely,

John Gray
President

Enclosure

STATEMENT
FOR THE RECORD
UNITED STATES SENATE
COMMITTEE ON THE ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON TRANSPORTATION

SENATOR LLOYD BENTSON, CHAIRMAN

SENATE BILL 2913
FEDERAL-AID HIGHWAY ACT OF 1980

SUBMITTED BY
THE NATIONAL ASPHALT PAVEMENT ASSOCIATION
J. J. MCTAGUE, CHAIRMAN OF THE BOARD
JOHN GRAY, PRESIDENT

SEPTEMBER 10, 1980
WASHINGTON, D.C.

best copy available

September 10, 1980

Mr. Chairman, the National Asphalt Pavement Association (NAPA) represents hot-mix asphalt producers and paving contractors. Our membership is responsible for over seventy-five percent of the hot-mix asphalt produced and placed in America. NAPA is pleased to offer comments on Senate Bill 2913, the 1980 Federal-Aid Highway Act.

DEFENSE AND MOBILIZATION

The primary purpose of our incomparable highway system, to facilitate America's defense and mobilization needs, is no less important today than twenty-five years ago when the Interstate System for Defense of Mobility was established in Congress. In many respects the need is even greater when the value of America's irrevocably integrated transportation network is fully calculated and added to defense and mobilization. The absolute need for funding of our highway programs at a level that will protect the billions of dollars already invested by American taxpayers in this system is clear and should be indisputable.

SUPPORT FOR GOOD ROADS

In support of those needs, we have no doubt the Committee will receive abundant testimony urging the continuance of the Highway Trust Fund. We are certain there will be well-informed opinions that funding levels should be increased substantially in order to maintain all the programs now underway by the Federal Highway Administration.

Further, we are aware that in some quarters there is considerable support for returning a large share of the money collected on behalf of federal highway programs directly, and in the form of block grants to the states for discretionary disbursement as needed by each of those states.

Also, it is reasonable for the participants in this, and almost any other, program to think of more money, more programs, and increasing the federal role. We have no quarrel with such advocates inasmuch as our goal - good roads - is the same.

Rather than repeat arguments in support of any or all of these proposals, the National Asphalt Pavement Association would like to offer for the Committee's consideration certain specific points that will not likely be put forward by other interested groups.

AMERICA FIRST

NAPA has a policy, adopted in formal resolutions by the Association's Board of Directors, of supporting first, what is best for America; second, what is best for our industry; and third, what is best for the Association. With that philosophy in mind, we are proud to offer to the Committee a point of view that is informed as well as practical, and with the best interests of our country as our primary concern; a concern we share with each member of the Committee and our sister associations in the highway industry.

THE TAX CLIMATE

We believe the next Congress of the United States may well be of a mind not to increase taxes of any kind, regardless of the need or the program. It is reasonable at this point to expect the Members of Congress, especially those who are facing the voters this November, to come to Washington in 1981 with the voices of voters still ringing quite clearly; voters who are saying in every corner of this country that government intervention in their lives has reached an unacceptable level, and that taxes have become a burden that will not be tolerated at the present rate of increase and inflation.

Although there is every reason to believe the American taxpayers will support reasonable increases of user taxes in support of good roads, there is also reason to believe it will be difficult to convince their representatives in Congress that such grassroots support does exist.

Regardless of the attitude in the next Congress, we who are interested and aware of the country's well-documented highway needs - especially the maintenance and repair of existing roads and bridges - must evaluate as many of the practical and political factors as possible in designing solutions.

THE FEDERAL ROLE

We offer for your consideration a pragmatic suggestion, in that some consideration should be given to not asking for an increase in taxes, for not increasing federal-aid programs, and, in fact, cutting back on federal programs. This is the best time to reevaluate the federal role in America's highway programs. At the heart of this suggestion are several points:

1) There is a solid and growing constituency in support of the individual states being given the flexibility to spend highway tax dollars on highways as is best needed by each state. The discretionary needs and priorities of the states vary in such a degree that federal programs can appear to be relatively inflexible by comparison.

2) The current balance in the Highway Trust Fund of approximately $12.2 billion stands as a legitimate resource in solving much of our current backlog of highway and bridge maintenance problems, as well as completion of the Interstate System. At the very minimum, the Trust Fund balance should be removed as a point of contention by those who are searching for solutions to the problem of highway program funding.

3) A rational analysis of the future federal role in the Nation's highway programs may conclude that role should be limited to the Interstate System alone.

4) The current variety of taxes collected for highway programs may no longer be necessary, in that, with alterations in federal interests, an appropriate level of fuel taxes alone might be sufficient to meet the funding needs of federal programs.

5) Although an ad valorem tax would be more convenient in eliminating the need to periodically return to Congress for funding adjustments, it is that very exercise that will keep federal spending for highways closely in hand and accountable. There is no especially convincing argument that will support another addition to automatic increases in the cost of living. It is time for at least one government program to stand on its merits, testify to its worth, and be funded accordingly.

NAPA PROPOSALS

With these points clearly in mind, the National Asphalt Pavement Association suggests that the 1980 Federal-Aid Highway Act, the Good Roads Bill (as we prefer to call it), be amended along the following lines:

- Maintain the current rate of funding at 4¢ per gallon and extend the life of the Highway Trust Fund another decade.
- Draw down the Trust Fund balance at a regular rate to approximately $2 billion over the period ending in December, 1987, and only in direct support of Interstate maintenance and completion.
- Gradually eliminate all federal programs over the same period of time, other than 4R programs - resurfacing, restoration, rehabilitation, and reconstruction - related to Interstate highways.
- Allow all other highway programs, other than those involving the Interstate highways, to be assumed by the individual states as the practical and political demands of their respective highway and road constituencies determine are necessary.

In redirecting the federal interest in this manner, the U. S. Department of Transportation and the United States Congress will have taken a leading role in response to the people who must use and pay for our roads. Federal spending will be held in check, states' rights will be given a generous boost, and the decision for spending, in at least this one area of government activity, will be placed closer to the taxpayers where it might receive the most appropriate local priority in the remaining years of this century.

NAPA SUPPORTS THE GOOD ROADS BILL

The National Asphalt Pavement Association is eager to assist the Committee in designing legislation that is practical in the direction of support of highways and that is also practical in its approach to the taxpayers of America and their representatives in Congress. And, we thank the Committee for the opportunity to address this issue in such a timely fashion. Mr. Chairman, the Committee is to be congratulated for formally beginning the consideration of the very serious issue of highway funding at this early date. You may count on the continued interest and cooperation of the National Asphalt Pavement Association.

national
association
of regional
councils

1700 K St., N.W., Washington, D.C. 20006 • Area Code (202) 457-0710

RICHARD C. HARTMAN, Executive Director

Submission of

STATEMENT

# of the

NATIONAL ASSOCIATION OF REGIONAL COUNCILS

to the

SENATE SUBCOMMITTEE ON TRANSPORTATION

on

S. 2913

September 24, 1980

Washington, DC

NARC appreciates the opportunity to submit this statement on our views of S. 2913, which would extend the Highway Trust Fund.

The National Association of Regional Councils (NARC) was initiated in 1967 to assist local government elected officials in organizing a rapidly growing number of regional councils. Regional councils are areawide organizations of general purpose local governments which encompass a total regional community. They exist in both metropolitan and rural areas. Prime purposes of regional councils are to increase cooperative decision-making and coordination among local and State governments; to review and comment on certain Federal grant applications; to develop policies and programs to meet mutual problems; and guide orderly development.

More than 600 regional councils have been established to deal with areawide problems in rural and urban regions.

Many of our member metropolitan regional councils have been designated by their Governors as metropolitan planning organizations (MPOs) for the purposes of transportation planning for highway and mass transit as required under Federal law.

NARC's Transportation Policy Committee which is comprised of local elected officials representing cities and counties, recently held a preliminary meeting to develop policy on S. 2913 and on the Department of Transportation's options papers dealing with the future of the Highway Trust Fund. We plan to meet again in February 1981, to develop more specific recommendations especially on funding levels of programs and methods of providing such funds based on DOT's cost allocation study.

Regardless of a change in the tax structure which would provide added revenue to the Trust Fund, there will still not be enough dollars to provide substantial increases to all programs currently funded. Thus, Congress and the Administration should truly scrutinize the Federal-aid highway programs, establish our national priorities within the system and provide adequate funding to meet these needs.

We also believe that DOT and Congress should develop comprehensive highway legislation which is focused upon achieving national goals such as energy conservation, economic development and air quality. We need to look for more innovative ways to move goods and to raise the public consciousness about the relationships such as farm and industry to market and harbor transportation as they seek to increase productivity and spur economic development.

FINANCING

We support the provisions in S. 2913 which would extend the Highway Trust Fund beyond its expiration date. We would also support converting the present tax to an *ad valorem* tax or indexed tax tied to the price of wholesale gasoline. Added user taxes also should be considered to augment the converted gasoline tax. A review should be made of the weight tax structure for goods movement so that the heavy truck vehicles, which contribute to the deterioration of our highways, pay a user tax based on the graduated weight class. Even under this approach, however, there should be weight limits to ensure that vehicles do not unduly accelerate the useful life of highway facilities. Furthermore, we would hope that additional user taxes will be tied to maintaining constant purchasing power for building and maintaining our highway system. We believe that such an approach would be politically acceptable to gasoline consumers who ultimately will have to pay higher prices at the pump if an ad valorem or indexing tax is enacted.

In sum, a change in the tax structure is necessary to income revenue since construction, reconstruction, and maintenance costs have escalated rapidly. Since 1956, it has been the principle that revenues for highway programs be paid mainly by the user. This philosophy should be continued.

INTERSTATE

We support S. 2913 in its attempt to expedite the completion of the "essential" gaps of the Interstate system and support a broadening of the "3r" to include reconstruction. According to DOT statistics, the Interstate system is still far from achieving its goal of completion and would require an additional $50.75 billion in Federal funds to advance to completion as presently defined. Current program levels could finance only $30 billion of the more than $50 billion needed. Thus, NARC would support the approach taken in S. 2913 which requires that at least 30 percent of interstate funds must be used exclusively for the completion of open-to-traffic segments on the interstate.

In addition, Congress should continue to support the maintenance of a transfer of those nonessential gaps as a local option for substitute projects.

The Federal government also should encourage the continuation of toll roads where they now exist since toll roads provide an exceptable user fee. A preexisting toll road should be eligible to be made part of the Interstate system.

FEDERAL-AID URBAN SYSTEM (FAUS)

The FAUS program continues to receive tremendous support by local jurisdictions since its goal is to develop a well-coordinated transportation system in every urban area.

There are several suggestions developed by NARC which would iron out some of the problems in the program by changing DOT regulations and the Federal statute.

First of all, the program has been criticized due to unnecessary costly delays, red tape and rigid design standards on the project development. In order to reduce these problems, the FAUS program should be redefined to be program oriented rather than project oriented. In this regard, both DOT and the State should be required to annually review a program rather than on a project-by-project basis. This method can reduce the time it takes for approval by State and Federal government.

Secondly, studies examining the Urban Systems program have indicated that the primary reasons for delays have been the rigid project design standards and the low priority States often place on implementing the urban systems projects. To provide more flexible design standards, the projects should be developed for standards in character with the nature of the local project rather than rigid Federal design standards. Thus, DOT should allow consultation on design standards for a particular project among officials of the State and metropolitan planning organization during annual program negotiations. DOT would not be required to approve these design specifications.

Thirdly, surveys have indicated that many local governments have the capacity to develop FAUS projects within the jurisdictions. We would propose that the program redefine the role of the State and local governments on FAUS project implementation. There should be some inducement for the State to play a review and certification role and that local governments, where the capacity exists, should be allowed to process and construct their own projects. Thus, the law should be modified to allow that in the case where the local government puts up half of the non-federal match or where the State and local government agree, the process and construction of the FAUS project should be undertaken by the local government within the framework described above.

In addition, we support S. 2913 in increasing the funding for FAUS from $800 million to $900 million in 1983. However, even this funding level may be inadequate. According to the preliminary census data, as many as 105 new urbanized areas will become eligible for FAUS funds in 1982. Thus, with the escalating costs of construction and maintenance on the urban highway program coupled with more than 100 new urbanized areas coming into the system, we believe that Congress should reexamine the funding levels for FAUS and provide a level of funding to meet these needs.

Furthermore, we would support increasing the match ratio for the total Urban Systems program from 75/25 to 80/20 to make it uniform with the other UMTA and FHWA programs such as UMTA Section 3 and the Bridge program.

One of the DOT options is to provide FAUS funds for areas over 200,000 population as a block grant directly to the Governors who could have the option of sending the funds through the State to the urban area or suballocate the funds to the local communities.

NARC would strongly oppose a block grant to the State since this would erode the present cooperation of Federal/State/local relationship which is essential to the Urban Systems program. Furthermore, suballocation of FAUS dollars to local jurisdictions would undermine the regional priority setting established by city and county officials under the umbrella of the metropolitan planning organization (MPO). Suballocation of funds would provide too few dollars to most jurisdictions and would not allow the flexibility of providing a major allocation to a single jurisdiction in any one year for a major project development.

TRANSPORTATION SYSTEMS MANAGEMENT (TSM)

The recent focus of the Urban Systems program has shifted towards transportation systems management (TSM) or techniques which maximize the use of present transportation systems in light of limited Federal dollars and energy constraints. TSM is intended to conserve energy, improve the quality of air and restore and revitalize our declining urban centers. Successful TSM programs in communities across the country include preferential treatment for high-occupancy vehicles, parking management, central city pedestrian improvements, carpooling, and vanpooling. However, because the program is still relatively new, there is a need to continue to educate local and State elected officials, traffic engineers and transit operators on successful TSM programs.

We also need the help of Congress in this effort. Thus, we support a funding level of at least $250 million per year for TSM at a 90/10 match. In this way, we can make TSM programs attractive for those local communities interested in making more efficient use of their transportation systems.

TRANSPORTATION PLANNING

Section 134 of the Federal-Aid Highway Act institutionalized the principles of a 3C -- comprehensive, cooperative, and coordinated -- planning process which included local participation for the first time. The 1973 Federal-Aid Highway Act authorized the establishment of a new category of funding for transportation planning in urbanized areas which provided ½ of 1 percent of Section 104(b) funds authorized to the Federal-Aid systems to be made available to metropolitan planning organizations (MPOs) for the purposes of highway planning. The urban transportation planning process at the MPO level has provided the form for cooperative decision-making by local elected officials of general purpose governments.

Since 1973 the urban transportation planning process has broadened, primarily due to DOT adding new responsibilities to the MPO, which include Section 504 elderly and handicapped transition planning, energy contingency planning, energy conservation programs and strategies, national urban policy objectives, and short-range TSM strategies. While the responsibilities that MPOs undertake have grown significantly, unfortunately, the funding they receive -- one-half of one percent of Section 104(b) -- has had minor increases. Furthermore, many MPOs have seen little or no Highway Research and Planning funds which go to the State and can be passed through to MPOs at the States' discretion to augment their Section 104 funds from FHWA.

Additionally, the more than 100 anticipated new urbanized areas which could be designated as MPOs will have a significant impact on the limited planning resources now available for MPOs.

Thus, for these reasons, we would urge that this Subcommittee reexamine the funding level for urban planning and urge that an increase be provided from one-half to one percent dedicated for this purpose. This is especially necessary if MPOs are to focus more of their resources on developing energy contingency plans and energy conservation strategies for their region. Furthermore, we believe that with additional funds MPOs could provide the necessary operational research and subsequent maintenance of TSM programs in the regions where the local governments and transit agencies agree that the MPO is the proper arena for maintenance of a TSM project such as a regional carpool or vanpool system. For example, in this region the Metropolitan Washington Council of Governments, which is the designated MPO, is operating and maintaining the Commuter Club, a computerized regional ride-sharing program of vanpools and carpools established during the Arab oil embargo of 1973-74. Last year, 24,000 workers in DC-VA-MD region used this service and thus saved thousands of gallons of gasoline.

In addition, when this area was experiencing a gasoline shortage last summer, local officials, including Mayor Marion Barry, Governors Harry Hughes and John Dalton worked through the MPO to develop the odd-even gasoline plan and other emergency measures that helped eliminate gasoline lines.

Lastly, this region's MPO has been responsible for developing and conducting express-bus experiments using reserve lanes and shopping center parking lots to assist residents of both DC and the surrounding suburbs to reach their jobs more easily. Many of these routes and parking arrangements are now a permenant part of this regions highway system.

PRIMARY

The Department of Transportation's options paper discusses several options for the future of the Primary program. A continuation of the Primary program should remain with increases in funding to offset inflationary which would guarantee that no significant deterioration takes place in this decade. It would allow the States to determine individually the importance of the Primary System to their own transportation network. The Federal government also should encourage the States to continue to maintain their present level of financial commitment for the Primary program.

BRIDGES

With the passage of the Surface Transportation Assistance Act of 1978, Congress significantly increased the Bridge program as it realized the poor condition of bridges across the country. At that time, NARC supported increased Federal funding for this purpose. We continue to support the program and the focus given to it in S. 2913. Congress should mandate that priority for Federal funding be given to those bridges classified as unsafe. The program should be reassessed periodically and DOT should indicate to this Subcommittee the point when hazardous bridges are near elimination.

In closing, NARC looks forward to working with the Senate Subcommittee on Transportation on implementing legislation to extend the Highway Trust Fund.

National Conference of State Legislatures

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President
Richard S. Hodes
Speaker Pro Tempore, Florida House of Representatives

Executive Director
Earl S. Mackey

September 19, 1980

The Honorable Lloyd Bentsen
240 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Bentsen:

In response to your letter of August 21 concerning hearings and comments on S. 2913, I am enclosing a statement by the National Conference of State Legislatures. We respectfully request that this statement be included in the record of the subcommittee hearings on this bill.

On behalf of the chairman of the NCSL Transportation Committee, Senator Tilman Bishop of Colorado, I would like to thank you for providing this opportunity to comment on S. 2913. We look forward to working with your subcommittee in developing legislation in 1981 which will adequately serve the highway transportation needs of our nation.

Thank you for your cooperation.

Sincerely,

Fran Valluzzo

Fran Valluzzo
Staff Director
Transportation

National Conference of State Legislatures

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STATEMENT OF
THE
NATIONAL CONFERENCE OF STATE LEGISLATURES
SUBMITTED TO THE
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
SUBCOMMITTEE ON TRANSPORTATION
ON
"THE FEDERAL-AID HIGHWAY AND HIGHWAY REVENUE ACT OF 1980"
S. 2913

SEPTEMBER 19, 1980

Mr. Chairman and members of the Subcommittee:

The National Conference of State Legislatures is pleased to be able to comment on S.2913 as we begin to focus on one of the most critical issues which you will face during the 97th Congress--the future of our nation's highways. We appreciate the fact that you have introduced this bill now, Mr. Chairman, rather than in January, so that we can begin to discuss the many problems associated with this issue.

When the Surface Transportation Assistance Act of 1978 was passed, we were only beginning to experience the real impacts which the energy crisis would have on the nation's highways. Since that time, of course, we have witnessed a continual erosion of the revenues which support the construction and maintenance of our highway system, at both the state and federal level. At the same time, energy-fueled inflation has increased the costs of highway construction and maintenance, further weakening the impact of increasingly scarce highway dollars. We are all familiar with the various factors which have contributed to the decline in revenues, such as an increase in the fuel-efficiency of automobiles, less driving by the public and the increased use of tax-exempt gasohol. The need for major highway rehabilitation, restoration and reconstruction, as well as routine maintenance, has increased as more and heavier trucks have altered the "mix" of vehicles using our highways.

We believe that S.2913 generally supports the goals of NCSL with regard to highways. We are especially pleased with the provisions concerning an expanded 3R program for the Interstate system to include "reconstruction." As more and more miles of our Interstate system reach their design life, the need to perform major reconstruction work on these miles becomes more critical. We support the increased authorizations in 4R funding for FY 1983. Only by such an increase can we begin to make up for the deferred maintenance caused by the financial strain on our highway revenues.

NCSL suports the completion of the Interstate system and is encouraged by the provisions of S. 2913 which are aimed at that end. However, we feel that the authorization levels contained in the bill are insufficient to do the job. The reduction in authorizations in FY 1982 will only extend the process of completing the Interstate system, with a much higher price tag. We believe that the financial commitment must be made to move ahead with the completion of the system, so that more resources can then be devoted to 4R and other highway needs.

NCSL is strongly supportive of the provisions of S. 2913 which provide for increased authorizations for the Bridge program. There can be no question of the need for the additional funds in this area. The Surface Transportation Assistance Act of 1978 clearly made a commitment in this area, and we are encouraged by this bill's recognition that more funding must be provided if we are to rectify the crisis situation of our nation's highway bridges, both on and off the Federal-aid system.

We are also encouraged by the proposal in this bill concerning the federal motor fuel excise tax. We in the state legislatures are painfully aware, as you here in Congress are, of the need for increased revenues for highways. Let there be no mistake that we also recognize the difficulty in raising the increased revenues which are needed. But the states are addressing this issue. There are currently six states[1] which have converted their cents-per-gallon gasoline taxes to some type of variable tax which is more responsive to inflation. There are also eight states[2] which have a sales tax applied to gasoline, although not all of them use all of the revenue from the sales tax on gasoline for road improvements. In the 1979-1980 biennium, a total of eighteen states have increased their gasoline taxes through increases in the cents-per-gallon rate or by converting to some type of variable gasoline tax. At least twenty-eight state legislatures considered such legislation in 1980 alone. Gasoline taxes promise to be one of the most important issues of the 1981 session of state legislatures. The point is, state legislatures have recognized the critical needs and are responding. We are encouraged that Congress will also be focusing on the need for a change in the federal gasoline tax in 1981. Although NCSL does not have a policy position concerning an increase in the federal gasoline tax, we do wish to make you aware that the states are responding in their own ways to the crisis of our highways.

We would also like to point out that many states are experimenting with other means of dealing with this crisis. A number of states, like the Federal government, are undertaking highway cost allocation studies to determine if highway users taxes are equitably distributed. Other states, notably Montana, are using revenues from severance taxes to help supplement their highway revenues. The State of Texas is unique in its use of highway budget indexing as a means of supplementing user revenues with general funds to meet the projected needs of their highway program.

The National Conference of State Legislatures, recognizing the concerns among state legislators over declining highway revenues and increasing costs, held a national Highway Finance and Maintenance Seminar in August, at which many of the state activities mentioned above were discussed by state legislators from across the nation. This information is being compiled into a seminar summary, which, along with the materials distributed at the meeting, we would be happy to make available to this subcommittee.

One of the issues which will be part of the debate next year will be the issue of costly delays in highway construction due to "red tape." NCSL hopes that this issue will be given serious consideration in the legislation which is drafted. The old adage "Time is money" was never more appropriate than it is as it applies to the Federal-aid highway program. It now takes approximately seven years to build a highway, from planning to final construction, with the original estimated costs being only a fraction of the actual costs. We support efforts by Congress and the Department of Transportation to streamline the highway program to make the maximum utilization of increasingly scarce highway dollars.

One means of accomplishing this has been suggested as an "option" for consideration by DOT in their discussion papers on the future of the highway program. That option calls for the creation of "transportation block grants" which would do a number of things: 1) it would provide more flexibility for state use of the funds in areas where they are needed; 2) it would eliminate much of the "red tape" and delays associated with the regulations of the current narrow categories and 3) it would shorten the time for accomplishing highway improvements, thus saving money. This concept is particularly attractive if there is a large increase in the federal gasoline tax. If that occurs, it has the effect of "pre-empting" states' ability to raise their own gasoline taxes. This situation occurred in at least one state this past Spring. The announcement of the President's 10¢ "conservation fee" on gasoline caused the deferral of further consideration of a gasoline tax increase which was, up until then, given a fairly good chance of passing the legislature. Returning the revenues from a federal gasoline tax increase to the states in the form of transportation block grants will insure that states will be able to finance the highway improvements which are needed.

In closing, we would like to say that we look forward to the challenge of working with this subcommittee in the year ahead. We would hope to appear before you in the future to discuss in more detail our views on the future shape of the Federal-aid highway program. We thank you for this opportunity to comment and commend you, Mr. Chairman, for providing the forum for these comments as we prepare for the difficult tasks ahead of us.

[1] Washington, New Mexico, Kentucky, Indiana, Nebraska and Massachusetts

[2] California (6%), Georgia (3%), Hawaii (4%), Illinois (5%), Indiana (4%), Michigan (5%), Mississippi (5%) and New York (4%).

ncjc National Oil Jobbers Council
1707 H Street, N.W., 11th Floor
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September 23, 1980

The Honorable Lloyd M. Bentsen
Chairman
Subcommittee on Transportation
Environment and Public Works Committee
240 RSOB
Washington, D.C. 20510

Dear Mr. Chairman:

The purpose of this letter is to submit the National Oil Jobbers Council's (NOJC) comments on Title II of S2913--the Federal-Aid Highway and Highway Revenue Act of 1980. We appreciate your consideration of our views.

The NOJC is a federation of 44 state and regional associations representing over 15,000 independent small business marketers of petroleum products. (See Attachment) The individual members of these associations include gasoline and diesel fuel wholesalers, commissioned distributors of gasoline, gasoline reseller-retailers and a large number of retail fuel oil dealers. Our members also market other petroleum products--kerosene, LP gas, aviation fuel, motor oils and residual fuel. These small businessmen and women market approximately 50 percent of the gasoline and 80 percent of the fuel oil sold in this country.

Because of the unique position of these small businesses in the petroleum product distribution system any changes in the federal excise taxes applied to those products will have to be carefully evaluated in terms of the impact of those changes on the viability of our members' businesses.

The tax formula put forth in S2913 is designed to solve the financial problems inflation and decreased gasoline demand has created for the Highway Trust Fund. NOJC fears, however, that it will also aggravate the problems imposed on marketers by the current system, as well as create tremendous cash flow problems for these small businesses.

Under the current system marketers either pay the federal excise tax on gasoline when they purchase the product from their supplier (who then remits it to the federal government), or purchase the product "ex-tax" and are responsible for remitting the proper amount to the government directly.

Neither of these methods are perfect nor without problems. In the first instance marketers pay taxes on gallons they will lose through shrinkage and other ways. Most marketers operate under this system. In the latter case, they are forced to pay taxes after they sell the product under a payment schedule which requires the taxes to be remitted within 9 days of the semi-monthly period. This means simply that a marketer make payment on September 9 for gasoline sold September 1.

This payment schedule sounds simple enough on the surface, but it is objectionable on two counts. As a practical matter it is impossible for many marketers to know how much gasoline they sold during the payment period in only nine days. For example, if the first falls on a Thursday prior to a 3-day holiday weekend, a marketer would not receive their dealer sales records through the mail until Tuesday the 6th. The jobbers' accountant who often is also his spouse, must handle her usual office responsibilities as well as attempt to collate all the data from all the stations and make the necessary deposits within three days. If the data is not properly tabulated the marketer can estimate the gallonage but faces a 10 percent penalty if the gallonage is underestimated by 10 percent or more.

The other problem with this system is that no distinction is made between "sales" and "accounts receivable." The majority of marketers operate in rural areas and supply some commercial accounts as well as 90 percent of the petroleum needs of small farms. Often in the case of farm customers the marketer will sell the gasoline and not be paid for weeks or months. It is not uncommon for a marketer to be paid for a year's supply of gasoline when the farmer harvests his crops.

The proposed legislation would base the tax on the average wholesale price of the product. The tax would be 4 cents or 4 percent, rounded to the nearest cent, whichever is greater. The tax would be adjusted every six months. With the inevitable increase in product prices the tax will increase the cash flow burden on our members no matter how they currently handle the tax.

According to the results of a recent cash flow survey NOJC compiled using 1979 data submitted by a large random sample of our membership our concerns with this tax proposal are justified. Most industry observers felt that 1979 was a "good" year for marketers, however our study showed that 42 percent of our members experienced a negative cash flow that year. More significantly, nearly 60 percent of those surveyed did not expect their businesses to survive more than five years under existing economic and marketing conditions. Further, over 35 percent were forced to shorten credit terms with customers in order to get through 1979 and almost half said that in order to meet increased cash flow difficulties they would have to resort to bank borrowing on assets to meet accounts payable due dates.

By extrapolating the survey results, any price increase, whether it is a tax or cost of product, will negatively impact jobbers-- especially the smaller operations. Therefore, any changes in the tax system should be assessed very carefully for its impact, particularily in light of the cash flow burden such changes may impose.

NOJC strongly advises that any restructuring of the excise tax system include at minimum an extension of the payment period to remit the tax. We also recommend that alternative means to finance the highway fund be fully investigated before deciding that an increase in the tax is the only viable solution. We will be happy to work with you in developing these alternatives.

In times of inflation, recession and the omnipresent threat of an energy shortage, small businesses need every shred of flexibility in order to survive. We appreciate your consideration of our comments. As always, we are available to work with you and your staff on formulating a fair, equitable solution.

Sincerely,

Robert W. Sullivan
Executive Vice President

RWS/nhs

NOJC represents these member associations:

Alabama Petroleum Marketers Association
Arizona Oil Marketers Association
Arkansas Oil Marketers Association
California Independent Oil Marketers Association
Colorado Petroleum Marketers Association
Independent Connecticut Petroleum Association
Petroleum Association of Delaware
Oil Heat Institute of Greater Washington (DC)
Florida Petroleum Marketers Association
Georgia Oilmen's Association
Illinois Petroleum Marketers Association
Indiana Oil Marketers Association
Intermountain Oil Marketers Association
Iowa Independent Oil Jobbers
Kansas Oil Marketers Association
Kentucky Petroleum Marketers Association
Louisiana Oil Marketers Association
Maine Oil Dealers Association
Petroleum Council of Maryland
Better Home Heat Council of Massachusetts
Michigan Petroleum Association
Mississippi Oil Jobbers Association
Missouri Oil Jobbers Association
Nebraska Petroleum Marketers, Inc.
Independent Oil Men's Association of New England
New England Fuel Institute
Better Home Heat Council of New Hampshire
Fuel Merchants Association of New Jersey
New Mexico Petroleum Marketers Association
Empire State Petroleum Association, Inc.
North Carolina Oil Jobbers Association
Northwest Petroleum Association
Ohio Petroleum Marketers Association, Inc.
Oklahoma Oil Marketers Association
Oregon Oil Jobbers
Pennsylvania Petroleum Association
South Carolina Oil Jobbers Association
Tennessee Oil Marketers Association
The Texas Oil Marketers Association
Virginia Petroleum Association
Washington Oil Marketers Association
West Virginia Oil Jobbers-Distributors Association
Oil Jobbers of Wisconsin, Inc.
Wyoming Petroleum Marketers Association

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Statement of
The Grade Crossing Safety Subcommittee
of the
Railway Progress Institute
to the
Senate Subcommittee on Transportation
of the
Committee on Environment and Public Works
on
S. 2913
The Federal-Aid Highway & Highway Revenue Act of 1980

* *

The Grade Crossing Safety Subcommittee, composed of manufacturers of rail-highway crossing lights, gates, bells, surfaces, and related componentry, of the Railway Progress Institute, the national association of the rail and rail rapid transit equipment and supply industry appreciates the opportunity to comment on S. 2913, the Federal-Aid Highway and Highway Revenue Act of 1980.

We would like to congratulate Chairman Bentsen and members of the Subcommittee for their foresight to begin hearings on authorization for federal aid highways for fiscal year 1983 at such an early date. Maintaining our interstate highway system is absolutely essential as are the associated highway safety programs.

We would, however, wish to note the absense of provisions for highway-railroad crossing safety programs as legislated in Title II, Sec. 203, of the Surface Transportation Assistance Act of 1978, which provided $760 million over four fiscal years on a 90 percent federal, 10 percent state or local contribution level specifically dedicated to grade crossing safety improvements on and off the federal highway system.

It is our considered opinion that S. 2913, as presently written without any provisions for rail-highway grade crossings, would destroy the effectiveness of the national grade crossing safety program, first instituted under the Highway Act of 1973, the Highway Act of 1976, and continued under the Surface Transportation Act of 1978.

The National Transportation Safety Board stated August 11, 1977, in its report of a Stratton, Nebraska, accident involving a bus and a Burlington Northern freight train when nine were killed, there must be an improved program to "combine efforts to develop and implement a uniform system of warning devices to attract the attention of motor vehicle drivers approaching railroad/highway grade crossings. With the increased movement of hazardous materials by rail, the potential for unprecedented tragedy at an unprotected grade crossing becomes totally unacceptable.

We submit, Mr. Chairman, we do do not need another catastrophic accident to impress Congress with the need to heighten grade crossing safety as a separate line in federal funding.

We would like to digress for a moment and provide some information on the history of the National Grade Crossing Program.

HISTORY OF THE NATIONAL GRADE CROSSING PROGRAM

Prior to 1973 there were no dedicated federal funds for states to use to pay for installing or upgrading grade crossing warning systems. There were only "G" funds. Each state was authorized to use of to 10 percent of their monies from the Highway Trust Fund to reimburse the railroads for what generally amounted to up to 90 percent of the cost for each crossing -- buy only on the federal aid system.

Except for a few states, very little was accomplished on a national scale since the number of crossings off the federal aid system constituted almost 80 percent of all crossings. As a result the country continued to experience between 1100 and 1500 fatalities and 3000 to 4000 injuries annually from grade crossing accidents. Furthermore, the railroads have always believed that grade crossings should not be the railroads' financial responsibility. Mr. Benjamin F. Biaggini, Chairman of the Board and Chief Executive Officer of the Southern Pacific Transportation Company, said just prior to the 1978 Act, "Grade separation structures and automatic grade crossing protection devices should be recognized as parts of the street and highway system, and as such, paid for by the governmental agencies involved."

In 1972 the Federal Highway Administration and the Federal Railroad Administration submitted a joint report to Congress arguing that this serious a problem justified a more-organized attack and, in particular, dedicated funding.

Their report stated: "Over 70,000 people have lost their lives at railroad crossings in the past 50 years. Over 15,000 in the last decade. The shock of this statistic alone is enough to warrant an intensive countermeasure effort." In some specific aspects, the problem is more severe than one might guess. Consider that the fatality-to-injury ratio for crossing accidents by some estimates is 40 times that for all motor vehicle accidents. Thus, the violence of crossing accidents is clearly evident.

DOT's report further stated: "Figures showing annual number of accidents per crossing indicate quite clearly, particularly in the higher traffic volume ranges, that the crossings with active protection can be expected to experience a lower average number of accidents per crossing than those with passive protection." In that connection the report stated that "only 8944 or 18 percent of the 45,528 then actively protected crossings are equipped with automatic gates, which is the most-effective type of protection. The installation of automatic gates can be expected to further reduce the rate of accidents per crossing to about one-half of that indicated for actively protected crossings without gates."

And finally, the DOT saw the exposure to accidents becoming even worse. "During the most recent ten-year period, freight train miles increased about 10 percent. The decline in passenger train miles appears to be stabilized. With continuing increases anticipated in motor vehicle miles of travel, all indications point toward a greater upward trend in the potential for conflicts between these two modes of travel at railroad/highway crossings in the near future." DOT concluded its 1972 Report to Congress by stating: "We need to increase the rate of installation of new or upgraded train activated warning devices."

GRADE CROSSING PROGRAM PERFORMANCE UNDER THE HIGHWAY ACTS OF 1973 and 1976

Typical of what has happened nationally is the experience in Illinois: "Funds under the Act of 1973 were first available in Fiscal Year 1974. All of the usual problems of initiating a new federal program resulted in minimal accomplishments that year. In Fiscal 1975, 76 state and local projects were initiated with a value of just over $2 million. The fiscal 1976 program included 163 states and local projects totaling $5.4 million. $8.5 million was scheduled for 1977".

California, one of the few states that already had an established and effective program built around active equipment, was able to report in its 1975 annual PUC report that its ratio of crossing casualties to all highway casualties had declined from 3 percent in 1958 to 2.5 percent in 1967 and 1.25 percent in 1975.

Further positive testimony came from Howard Anderson, Associate Administrator for Safety, FHWA, at the National Conference on Railroad/Highway Crossing Safety, Salt Lake City, August 27, 1977, commenting on national results: "Recent figures published by FRA indicate that fatalities resulting from train/motor vehicle accidents are considerably down since the mid-1960's."

"The 1975 figure of 788 fatalities marked the first time since such records have been compiled that the figure was below 1000." And he added the more active states like Florida and Georgia experienced more dramatic reductions of 35 to 40 percent. In California, of 1552 grade crossings where automatic warning devices were installed between 1969 and 1970, accidents were reduced by 69 percent.

The experience of the Burlington Northern (BN) is most interesting. That one railroad alone has some 20,700 public crossings in 16 states. At these crossings they have some 3000 active warning devices and 17,700 passive warning devices. At the same 1977 Conference in Salt Lake City, Mr. D. D. Thomas, Director, Public Works Planning for the BN, reported: "The BN presently have over

450 active projects which we are now processing in one phase or another, from formal request to final bill pending, that amount to more than $20,500,000. Out of this total cost, $700,000 are actual BN expenses, or about 3.5 percent of total cost. In January, 1974, we had about 225 active projects at a total cost of $6,000,000."

Mr. Thomas continued: "The point I want to emphasize is that the Federal Aid Act has not only been a fantastic safety program; but the railroads probably could not have afforded such a program without the assistance of this Act."

Speaking further to the understandably slow rate of obligation of crossing monies in the first two years of the program, Mr. Thomas commented: "The establishment of the grade crossing inventory program and for the states to provide for a systematic approach to the planning and prioritizing of these projects took time. In fact, the impact of this program was not really felt by the railroads until 1975. At this time the states were well organized and their projects prioritized and ready for formal presentation to the railroads. The railroads after completion of the inventory were lulled into complacency because of no action by the states, not knowing the states were actually prioritizing these projects in mass numbers. When the dam broke and the projects started to flow, the impact upon the railroads was quite dramatic."

The RPI Grade Crossing Safety Subcommittee made a substantial contribution to getting the program off the ground. Under its auspices the supply industry formed a task force composed of the most knowledgeable crossing warning system experts in the field. They put together a workshop on the history and technology of crossing warning systems and details as to the mechanics and organization of the more active and successful state programs.

In addition, the industry began a series of "State Visits" to determine what barriers are confronting the states in implementing an effective grade crossing program and to determine what help the supply industry might be in reducing these barriers. This "State Visit" program was initiated in 1977 and continues today.

To date there have been 38 RPI-sponsored workshops involving 48 states and thousands of state, federal, and railroad personnel. We are pleased to note that our allied organization, the Association of American Railroads, conducts similar workshops with federal and state highway and railroad officials participating.

SURFACE TRANSPORTATION ACT OF 1978

The Surface Transportation Act of 1978 eliminated the distinction between roads on and off the federal-aid highway system, thus, making all funds available for use wherever needed at the discretion of state officials. The results in 1979 were remarkable. Preliminary Federal Railroad Administration statistics indicate that 1979 will have the lowest number of fatalities at rail-highway crossings ever recorded with 733. This 733 figure is 52 percent below the 1520 fatalities recorded in 1967 which translates into the saving of some 787 lives per year! This reduction in fatalities per year has persisted in spite of a 40 percent increase in exposure due to a 60 percent increase in motor vehicle miles on all rural and urban roads between 1967 and 1978. Few federal-aid programs can boast of such success.

CONCLUSIONS & RECOMMENDATIONS

From the statistics cited above, one can see that the investment of the millions of dollars made by Congress over the past seven years has returned outstanding results. It has increased the installation of active warning devices with more sophisticated systems which has improved the credibility of these systems to the point of fail-safe.

The Congress saw fit in 1978 to authorize a total appropriation of $760 million for four fiscal years, 1979 through 1982, resulting in $190 million appropriation per year. Unfortunately, inflation averaging some 9 percent per year in the past four years has severely reduced the buying power of that $190 million per year appropriations. Therefore, RPI would recommend a total four-year

appropriation of $900 million which would break down to $225 million appropriation per year available on the same federal state matching schedule as legislated in Sec. 203 of the Surface Transportation Assistance Act of 1978.

We believe that these prior Highway Acts of 1973, 1976, and 1978 created a strong foundation for the highway crossing program. To eliminate the dedicated funds for this program now would only defeat the objectives that these prior Acts sought to achieve.

* * *

September 23, 1980

701 W. 15TH STREET / AUSTIN, TEXAS 78701 / (512) 476-9547

September 19, 1980

The Honorable Lloyd Bentsen
United States Senate
Committee on Environmental and Public Works
Sub-Committee on Transportation
Suite 4204
Dirkson Senate Office Building
Washington, D.C. 20510

RE: Comments on S.2913, The Federal-Aid Highway and Highway Revenue Act of 1980

Dear Senator Bentsen:

Members of the Texas Oil Marketers Association are well aware of the importance of the highway system to our nation and the heavy investment that has been made to build that system. Our more than 900 members also realize the necessity for protecting that investment with continuing maintenance and improvements. It is because of this that we wish to commend you and the Transportation Sub-Committee for their efforts to provide adequate funding for the Highway Trust Fund.

Our members are small independent businessmen that own and supply chains of branded and unbranded service stations in Texas, as well as supplying petroleum products to the vast majority of agriculture, energy production and consumer accounts. We supply approximately two-thirds of the service stations in Texas, which means that the consumers in our state rely on our outlets to provide them with the petroleum products they need. TOMA members are very active in business and civic affairs and are very interested in legislative and regulatory activities.

Our Board of Directors has recognized the need for additional funds for highways and we recently adopted a resolution stating our support for a reasonable increase in the state motor fuel tax, as long as it is on a cents per gallon basis. Our Association has previously visited with you and shared our concern with a percentage gasoline tax. Many of those concerns have been alleviated in the language that was utilized to draft Title II of S.2913. However, our strongest argument against the concept of a percentage tax is the damage it does to the philosophy which has always governed the motor fuel tax rate throughout the nation. The motor fuel tax was conceived as a means of allowing highway users and only highway users to bear the cost of highway construction and maintenance. For more than 50 years the federal government levied

TEXAS OIL MARKETERS ASSOCIATION

motor fuel taxes on a cents per gallon basis, which could be revised through congressional action to meet changes in highway revenue needs.

The Texas Oil Marketers Association believes it is in the best interest of the American consumer and the nation that the measure of taxation on motor fuels should be easily ascertainable and that changes be infrequent and related as closely as possible to the actual revenue needs of the federal government. Use of the legislative process to make changes in the tax rate assures careful consideration by elected officials of the requirements for additional highway revenues, prior to a decision for a higher motor fuel tax rate. The legislative process also gives highway users a voice in the rate of motor fuel taxes that they are required to pay through the right to petition their elected representatives.

A percentage tax, on the other hand, would remove the voice of the highway user in the rate of tax he would pay. Our Association questions the wisdom of removing the power of taxation from Congress and placing it in the hands of the forces which are controlling the overall price of gasoline. Those forces, as we have seen to our sorrow in the recent years, are beyond our control, and will remain so as long as we remain dependent on foreign sources for such a large share of our petroleum supply.

The Texas Oil Marketers Association believes that revenues for highway construction and maintenance must be based on established and documented needs, rather than on a price dictated by the foreign powers which comprise the Organization of Petroleum Exporting Countries or other factors out of the control of the government.

The Texas Oil Marketers Association must express its opposition to S.2913 for the reasons we have outlined, as well as some specific concerns we have with the legislation as drafted.

Although the method of determining the gasoline tax may eliminate many of the administrative problems that our members had visited with you about at our meeting in May, the percentage gasoline tax still has many loopholes. We are concerned as to just who would determine the wholesale price of gasoline, and what figures would be used. It is very difficult to establish an average wholesale price, and the bill does not specify what criteria would be used to determine this amount. For instance, dealer tankwagon prices, excluding taxes, listed in an August issue of the OIL DAILY, range from 85¢ per gallon in Newark, to 98.8¢ in St. Louis. A September issue of the OIL DAILY shows unbranded regular gasoline prices ranging from 84.50¢ per gallon on the Gulf Coast to 92.37¢ per gallon in Boston.

We also question the fairness of using the average price of motor gasoline to establish the percentage tax for middle distillates and other fuels.

It is our belief that by requiring the tax to change twice a year, you will be creating additional administrative expenses for the government, requiring an increased bureaucracy and additional paper work and problems for small businessmen who often collect the federal taxes and remit them to the government. It will be very difficult and costly to keep gasoline distributors informed of the changing tax structure if the motor fuel tax is adjusted twice a year.

Although the legislation establishes a minimum 4¢ per gallon tax, it does not place a maximum increase or decrease in any one year, or a maximum increase before further Congressional action must be taken. We feel it is very important that the amount of the increase be limited on an annual basis and that a ceiling be set to leave it at a realistic amount. We have seen the type of bureaucracy that has been created in the Department of Energy, and we do not believe the Congress should allow a similar situation to develop with the Highway Trust Fund, if the cost of gasoline continues to increase.

Again, we wish to stress that we agree that more funds are needed to finance highway maintenance and construction. However, there are reports that indicate the possibility of substantial price increases as a result of certain factors. The decontrol of gasoline and crude oil could result in increased prices . . . recently renowned economist and Purdue professor George Horwich pointed out that the cost of a gallon of gasoline could be $36.00 a gallon if we experience a 12% crude oil short fall, and the brunt of the shortage falls on gasoline. That would mean a gasoline tax of $1.40 per gallon. Horwich maintains that the price would come back down and level off at $2.90 per gallon, but that would still be an approximate 12¢ per gallon gasoline tax, or a 300% increase from our present tax.

We would also like to point out the problems that have developed in Indiana where they instituted a percentage gasoline tax in February of this year when the cost of gasoline was extremely high. The percentage tax went into effect on July 1, 1980 and because gasoline prices are now dropping as a result of the surplus and competition, it is very possible that the gasoline tax will have to be reduced when it is updated on January 1, 1981 . . . which means that the State Legislature is back where they started with reduced funds for highway maintenance and construction. This same thing could happen the the Highway Trust Fund!

It might be interesting to point out just what would have happened if the Congress would have adopted a 4% gasoline tax several years ago. Two years ago the dealer tankwagon price of a gallon of regular grade major brand gasoline was 45.82¢ per gallon. If a 9% tax had been placed on the cost of that product at that time, which would have been equivalent to a 4¢ tax that was in effect, the amount of gasoline taxes that motorists would be paying today would have doubled. The latest average dealer tankwagon price was listed as 94.52¢ per gallon. With a 9% tax applied to that, the gasoline tax would have come to 8.51¢ per gallon or rounded to 9¢ . . . more than double what the tax would have been.

The renowned LUNDBERG LETTER publication points this out even more explicitly. In a recent issue, it noted that the percentage of taxes to total retail gasoline price had remained constant at about 30% for more than 43 years. If this 30% figure had been maintained, "gasoline taxes in July 1980 would be 46.9¢ per gallon and the combined retail price $1.56.3. In actuality, taxes are 14.5¢ and combined price at $1.23.9 per gallon." Senator Bentsen, imagine what impact this would have on inflation.

As distributors of gasoline to the consuming public and as collectors of the federal gasoline tax, any change in the tax structure will have a direct impact on our membership. It will increase cash flow problems . . . it will increase the amount of bond we must maintain in order to collect and remit taxes, thus increasing our insurance expenses . . . and, as substantial users of petroleum products in order to get the product to service station outlets, agriculture users, energy production and drilling rigs and other commercial accounts, it will increase our cost of doing business. Despite these concerns, we realize the need for a realistic increase in revenue for the Highway Trust Fund.

We are protesting this particular piece of legislation because it includes a percentage gasoline tax. We are doing so on behalf of our customers and the citizens of the service area of members of the Texas Oil Marketers Association. They don't come to testify in Washington and they often don't take the time to write you or other members of the Committee . . . they complain to us about the rising price of gasoline and the lack of action by Congress to halt inflation. We believe that a percentage gasoline tax is a regressive one and will hurt the working people by increasing inflation and damaging the overall economy of our nation.

The Texas Oil Marketers Association recommends that the needs of the Highway Trust Fund be completely re-evaluated taking into consideration the possibility of a decline in travel, highway usage and the small size of cars which may alleviate a significant amount of highway maintenance. In Texas alone in 1979, total vehicle miles traveled decreased by 715 million miles.

Our Association urges that your Committee determine the amount of funds that are needed for the Highway Trust Fund and evaluate the amount that is needed from the motor fuel tax, as well as investigating alternate methods of gaining funds through areas such as the Windfall Profits Tax. We also feel strongly that any increase in the motor fuel tax should explicitly mandate that all funds be used for highway construction and maintenance and no other purpose.

Our interest in this matter is motivated by a keen appreciation of the importance to this nation of an adequately funded highway system. As we stated earlier, we truly believe that it is in the best interest of the American consumer that the measure of taxation on motor fuels be easily ascertainable and that changes be infrequent and related as closely as possible to the actual revenue needs of the federal government. Since the introduction of the motor fuel tax more than a half century ago, the federal government has used volume on a cents per gallon basis as the basis of the tax. This system is easily understood by the consumer and the industry and there is no reason to change a known and widely accepted method of taxation. On behalf of our customers, your constituents and petroleum marketers in Texas, we urge you give serious consideration to abandoning the concept of a percentage tax.

If you have any questions or we can provide additional information, please feel free to contact me or our Executive Vice President Dave Fellers in Austin.

Cordially,

John Calhoun

John Calhoun
President

JC/vk

STATEMENT

TRUCK TRAILER MANUFACTURERS ASSOCIATION

2430 Pennsylvania Avenue, N.W., Washington, D.C. 20037
(202) 785-5833

Before

UNITED STATES SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON TRANSPORTATION

August 19, 1980

INTRODUCTION

The Truck Trailer Manufacturers Association (TTMA) is submitting this statement regarding S. 2913, the Federal-Aid Highway Act of 1980, to the Subcommittee on Transportation of the United States Senate Committee on Environment and Public Works, and respectfully requests its inclusion in the record. TTMA is grateful for the opportunity to comment on the vital topic of highway finance, and wishes to express its appreciation to Chairman Lloyd Bentsen for providing the vehicle for such discussion.

TTMA is concerned with two seemingly disparate issues which are actually interrelated; the financial integrity of the Highway Trust Fund and the inequities of the manufacturers excise tax on trucks, truck trailers, truck bodies, and related parts and accessories.

TTMA is the only national organization representing the manufacturers of truck trailers and tank trailers. Membership includes ninety-four vehicle manufacturers and an additional one hundred and thirty associated companies who supply raw materials and components for trailer manufacture. TTMA member companies are responsible for over ninety percent of the domestic output of all types of truck trailers.

The truck trailer industry, when operating at normal capacity, enjoys annual sales of over two billion dollars per year and employs over thirty thousand people. Today, like the automobile industry, trailer manufacturers are stung by the lash of recession. January 1980 truck trailer production was 31.4% below that of 1979. By June 1980 trailer production had plummeted 56.1% below 1979. Current estimates of unemployment show 40% of the workers idle, while July and August statistics are expected to manifest a further, even more serious decline in vehicle production and employment.

It is against this dismal backdrop that TTMA urges the repeal of the manufacturers excise tax and the replacement of any revenue loss with an automotive fuel tax calculated at a realistic rate to preserve the Highway Trust Fund and meet the challenges of the future.

The Parlous State of the Highway Trust Fund

The Highway Trust Fund, portrayed for years by advocates of mass transit as a bloated reservoir of cash, is no longer sufficient to construct and reconstruct our national highway system.

TTMA believes that the completion of the Interstate System, over which much of the nation's truck traffic flows, is essential to the national interest. The Surface Transportation Assistance Act of 1978 brought a welcome focus to the condition of bridges. Equally vital is the recognition of the aging status of many existing interstate links. In short, completion of the system and resurfacing, restoration and reconstruction of the existing highways requires a reassessment of highway financing.

The five million dollar National Transportation Policy Study Commission (NTPSC), mandated in the Federal-Aid Highway Act of 1976, focused on the existing transportation systems ability to meet projected needs, and on the financing and need for supplemental projects.

The NTPSC concluded that if highway expenditures were limited to projected user revenues, based on current practices, few funds would be available for construction by the late 1990's. Further, the report seconded that the Highway Trust Fund should be retained, and that fuel taxes would be indexed to reflect the rate of inflation.

The NTPSC's model medium growth scenario forecasts vehicle mileage up 79 percent, passenger vehicle fuel consumption down 13 percent, and no growth in highway fuel revenues by the year 2000.

Although the turn of the century seems far off, it is in fact only twenty years away, and wisdom indicates planning must begin today.

Excise Taxes and the Highway Trust Fund

The Federal Government has imposed various excise taxes on trucks, truck trailers, buses, truck bodies and equipment throughout much of this century. Although the excise tax on truck trailers was imposed in 1941, the current 10 percent tax took effect in 1956 with the creation of the Federal-Aid Highway program. In 1963 the percentage of the levy allocated to the Highway Trust Fund was increased from 50 percent to 100 percent.

Since 1956 a gradual retreat from using similar excise taxes to fund highways has occurred. The taxes on school buses (10%), small three wheeled vehicles (10%) camper coaches (8%), and trailers and truck bodies for agricultural use (10%) were repealed in 1965. The three cent per gallon tax on cutting oil was repealed in 1966. The taxes on concrete mixer bodies (10%) was repealed in 1969, light truck trailers and buses under 10,000 lbs (10%) was repealed in 1971; local transit buses (10%) later in 1971; intercity buses (10%) bus parts and accessories (10%), bus tires and tubes (10¢ per pound) and bus tread rubber (5¢ per pound) were repealed in 1978.

The largest revenue producing motor vehicle excise taxes, automobile parts and accessories (8%) and automobiles (7%), were never assigned to the Highway Trust Fund. These general revenue measures were repealed in 1966 and 1971 respectively.

The present remaining manufacturers excise taxes, dedicated to the Highway Trust Fund, include heavy duty trucks (10%), truck trailers (10%), truck bodies (10%), truck and trailer parts and accessories (8%), truck and trailer tires and tubes (10¢ per pound), truck and trailer tread rubber (5¢ per pound) and gasoline and diesel fuel (4¢ per gallon).

The remaining taxes on trucks, truck trailers, and parts and accessories raise substantial questions of equity and public policy. In contrast to a motor fuel tax which bears a direct relationship to highway use, the tax on trailers is not proportional to actual highway use. The ad valorem trailer tax remains the same if the vehicle is used in trans-continental or local delivery service.

This same disparity exists when the life expectancy of the taxable entity is considered. A truck trailer destroyed in an accident during its' first week of operation is subject to the same flat charge as one which travels millions of miles during decades of operation.

Traditionally social policy has been to levy a luxury type excise tax on an item which has hidden societal costs, e.g. liquor or tobacco taxes; or to discourage displacement of natural resources from a war effort, e.g. the 1917 truck and bus and 1941 trailer excise taxes to save steel. The motor vehicle - related manufacturers excise taxes differ from this history. Instead, it is simply a cumbersome and inefficient revenue raising device hidden on non-consumer goods.

Any excise tax is an economics disincentive to investment in the affected industry. The manufacturers excise taxes on trucks, truck trailers, truck bodies, and related parts and accessories discourage production and depress employment. Even worse in its effect on the national transportation industry is the excise taxes discouragement to purchasers seeking to replace older equipment which lack the safety and energy efficient features of new equipment. As vehicle prices rise, government revenues rise, all to the detriment of the new vehicle purchaser.

Although the excise tax seems a simple matter of collecting one tenth of the sale price of a trailer, substantial compliance and administrative burden exists as manufacturers attempt to cope with the thicket of, often conflicting, excise tax regulations. Although Public Law 95-458 provides some relief by clarifying the formula for determining the taxable basis, the complexity of administration is hardly lessened. We should emphasize that such burdens would not be eased by mere rate cutting; only complete repeal offers relief.

Congress has recognized these difficulties and inequities. The Senate version of the Tax Reduction Act of 1975 repealed the taxes, however, the House-Senate Conference Committee rejected the proposal. Although the Highway Revenue Act of 1978, Public Law 95-599, directed the Secretaries of the Treasury and Transportation to review and analyze, by 1982, all of the Highway Trust Fund dedicated excise taxes, TTMA believes that immediate repeal would not be precipitous in light of current events.

Indexed Motor Fuel Taxes: An Alternative

TTMA welcomes the proposed variable gasoline tax proposal as set forth in Section 201 of the Highway Revenue Act of 1980. While indexing is one alternative, TTMA wishes to emphasize that as gasoline prices have skyrocketed in recent years, fuel tax revenues have remained constant.

While TTMA does not endorse indexed fuel taxes as a superior solution to raising the gasoline tax by one cent, thereby negating the need for excise taxes, indexing has been a successful financing alternative in two states.

The state of Washington began operating under a variable gas tax plan in 1977. The motor fuel tax law pegs the tax to a composite of the average retail pump prices throughout the state, with both a fixed floor and ceiling. During the 1979 price increases of gasoline, the tax rose by one cent per gallon.

The New Mexico statute took effect July 1, 1980 and will add one cent per gallon to the fuel tax for each ten cent increase in the wholesale price of motor fuel. A fixed ceiling is provided through 1983.

TTMA urges that the subcommittee study all alternatives to the wholesale price as the taxable base. Changes in the retail price, the construction cost index, the consumer price index, or the producers price index all provide potential yardsticks for indexing. TTMA recommends that the methodology used to review alternative bases focus on stability of revenue, and the ease of calculation and collection.

TTMA believes that a modest increase in the current motor fuel tax is a viable alternative to indexing. Although the Administration's ten cent per gallon increase, Senator Bennet Johnston (D - La.) and Representative John Anderson's proposed increases have met with little enthusiasm, TTMA believes a modest increase to protect the integrity of the Highway Trust Fund and eliminate the excise tax would fare smoother sailing.

The December 1979 Wyoming Trade magazine published the following editorial, which gives the views of one group of highway users and summarizes TTMA's position:

"Directors Desk"

A Reasonable Suggestion

A recent news release regarding gasoline taxes vs. Federal excise taxes relates to my October item on user fees and is worthy of our attention. According to Charles J. Calvin, President of the Truck Trailer Manufacturers Association, dependence on foreign oil, future curtailments in necessary highway repair and maintenance and inflationary increases in vehicle prices would be averted if the Carter Administration would raise gasoline taxes and eliminate the Federal excise tax on heavy trucks, truck trailers, and motor vehicle parts and accessories.

Those excise taxes amount to 10 percent of the manufacturer's price on new trucks, trailers and 8 percent on parts and accessories - all of which are paid by the vehicle purchaser.

"Although the excise taxes are dedicated to the Highway Trust Fund, they are such an administrative burden that industry and government pay nearly a dollar to collect a dollar", says Calvin.

Noting that although gasoline prices have skyrocketed while the 1956 vintage fuel taxes have remained constant, Calvin emphasizes that assigning one cent of this year's 40 plus cents increase to the Highway Trust Fund would increase revenue by over one billion dollars annually with no additional administrative costs.

"I believe the public is more willing to accept such an increase, as they see how vulnerable we are at the mercy of the Ayatollah Khomeini", says Calvin. Proposals to increase the gasoline tax have come from such diverse sources as the Energy Department's Oil Shortage Contingency Plan, Senator Bennett Johnston (D - La), and Republican Presidential contender John Anderson (R - Ill).

"The excise tax is an inefficient and cumbersome way to try to fund the highway system", says Calvin, "it provides no incentive to save energy and has not preserved our nation's highways".

He notes that although the Interstate Highway System is 90 percent completed, many roads date to 1956 and more than half the system needs to be upgraded. Of the 248,000 bridges on the major Federal-aid system roads, nearly 40,000 are structurally deficient or functionally obsolete, and over 70 percent of all bridges were built before 1935. The National Transportation Policy Study Commission recently concluded that by the late 1990's all available highway funds would be restricted to routine maintenance, debt service, and administration, with little available even for resurfacing.

It's natural that Mr. Calvin as President of TTMA, the sole national organization serving the manufacturers of truck trailers and cargo containers, and suppliers of components and raw material for trailer manufacture, whose member companies must collect 10 percent excise tax on new trailers and 8 percent excise tax on parts and accessories, would want to get rid of that job.

His suggestions have merit and could be supported by the truck operators since it is they who eventually pay the tax. Getting rid of the excise taxes, referred to by Mr. Calvin, would go far in removing the objections to Senator Johnston's bill (S. 1730) expressed in my October column.

WEST MICHIGAN REGIONAL PLANNING COMMISSION

GRAND RAPIDS AND ENVIRONS TRANSPORTATION STUDY

September 25, 1980

Honorable Lloyd Bentsen
Texas State Senator
240 Russell Office Building
Washington, D. C. 20510

Dear Senator Bentsen:

Please accept this correspondence as comment on your Bill S2913, the proposed Federal-Aid Highway & Highway Revenue Act of 1980. Hopefully, our comments will be useful to you in drafting future legislation related to transportation appropriations. I am writing as Secretary of the Grand Rapids & Environs Transportation Study (GRETS) Technical Committee. GRETS is the urban transportation arm of the West Michigan Regional Planning Commission (WMRPC) and is responsible for coordinating transportation programs in the metropolitan Grand Rapids area. The Technical Committee has discussed S2913 and officially authorized transmittal of comments to your office.

The need for effective urban transportation planning has been diligently met by the GRETS transportation planning process. GRETS has developed a coordinated areawide plan for transportation facilities in the metro area. The plan transcends jurisdictional parochialism and emphasizes arterials of regionwide significance. The planned system is oriented to reduction of air pollution, energy consumption, vehicle accidents, vehicle miles of travel and an increase in accessibility to various services.

Since 1973, over $14 million of Federal Aid Urban System funds have been programmed in the metropolitan Grand Rapids area toward implementation of the plan. We have been commended by Lester P. Lamm, Executive Director of Federal Highway Administration for "making full and effective use of urban system funds". Senator Carl Levin of Michigan, in speaking of the GRETS program, felt that we have "made highly commendable utilization of their attributable funds in past projects and will continue to do so in the future".

1204 Peoples Building, 60 Monroe · Grand Rapids, MI 49503
(616) 454-9375

Since 1974, however, our allocation of Federal Air Urban System funds has remained at a constant level. Rapid and dramatic cost increases for road construction and rehabilitation has significantly reduced our ability to implement projects with Federal Aid Urban System funds. GRETS has had to continuously delay projects that are ready to proceed and beneficial to the area due to diminished Federal Aid Urban System funds. Each year, projects are delayed, results in cost increases, further detracting from our FAUS improvement capability. In FY 80, $5.7 million of projects were included in GRETS Transportation Improvement Program, with only a $1.8 million allocation of FAUS funds available.

We feel that the proposed increase in FAUS allocations from $800 million to $900 million (S2913) is a positive direction. However, we also feel that a much more substantial increase is necessary, simply to restore the inflation depleted FAUS resource. Preservation of the FAUS program is an essential component of urban vitality and a wise investment of public resources. We recommend that in the future, consideration be given to major increase in the Federal Aid Urban System allocation. We appreciate this opportunity to comment and are available to respond to any questions you may have.

Sincerely,

Hal Morse

Hal Morse
Secretary
GRETS Technical Committee

HM:jsz

cc: Pat MacDonald

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20590

OFFICE OF THE ADMINISTRATOR

OCT 31 1980

IN REPLY REFER TO:
HCC-10

Mr. Paul Chimes
Editorial Director
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chimes:

Enclosed are the responses to the questions Senator Bentsen and Senator Stafford requested in connection with the August 19, 1980, hearing concerning S.2913, the Federal-Aid Highway and Highway Revenue Act.

I appreciate the opportunity to present my views on this proposed legislation to the Subcommittee. Please contact me if I can be of further assistance.

Sincerely yours,

John S Hassell, Jr.

John S. Hassell, Jr.
Federal Highway Administrator

Enclosure

cc:
Senator Robert T. Stafford
Senator Lloyd M. Bentsen

1. **Do you think it is better for the Federal government to continue its current level of highway funding or to change it in some way. Should Federal funding increase or decrease? Please comment on which programs should be expanded, and which ones should be cut back.**

The conclusion reached from the results of the analyses for the "1980 Report on the Status of Highways: Condition and Performance" is that, if the 1980 level of highway capital investment in constant dollars remains stable over the next 15 years, the composite mix of physical and operating performance will decline somewhat. If inflation increases at a faster rate than capital investment, as it has since 1970, serious deterioration of performance on the major highway systems will take place by 1995. A specific statement of which programs would need to be increased or decreased should await completion of the Administration's proposal for a highway bill.

The proper Federal role in the urban and secondary systems is currently being reexamined in connection with the development of the Administration's proposal for highway legislation. While we believe that there is a broad Federal interest in financially assisting the development and implementation of urban and rural highways, an increase in the degree of State and local flexibility within these areas is being studied as part of the current highway legislative cycle.

2. It appears that there are different issues facing the growing southwest and the established northeast. Do you believe the structure of the Federal-aid highway program has sufficient flexibility to meet needs of this diverse country? Are there things which should be done to make it more flexible?

While it is true that the problems of the various regions are often very different, we believe the program is basically structured to accommodate these differences. Under the various funding categories through which Federal aid is channelled, the type of projects eligible has expanded and consequently each State has been able to use the funds to better meet its unique needs. Also, the provisions of Title 23 allowing transfers between the categories of funds (primary/secondary/urban, and bridge replacement and rehabilitation/hazard elimination/rail-highway crossings) have permitted the States some latitude in directing Federal resources where they are most needed.

However, the States have in recent years been hamstrung by the prolific growth in the number of categories, many of which restrict the use of the funds to very narrow purposes. We believe that consolidation of several of these categories would enhance the States' ability to proceed with projects that would most suit their individual needs. In this connection, the Department of Transportation will be carefully reviewing numerous consolidation options over the next several months to determine if they merit inclusion in future legislative proposals.

3. **There seems to be agreement that certain segments of the highway system are deteriorating at an alarming rate. Some of these segments are reaching their design life. However, it appears that significant deterioration is also occurring on newer sections. Do you have any indication as to why pavement is not holding up? If not, are there any efforts underway to find out what the problem is?**

The design life of pavements varies depending upon such factors as geographic location, traffic loading characteristics, and structural adequacy. Pavements are designed based upon the anticipated number of load applications instead of a specific number of years. In some cases, traffic volume has grown rapidly and exceeded the anticipated levels in only a few years, resulting in early deterioration.

One of FHWA's major roles is to develop and promote the adoption of new technology, particularly those technologies with energy or cost saving potential. Over the past several years we have successfully developed and promoted techniques to recycle existing pavements, increase use of emulsified asphalt, reduce heating and mixing temperature for asphaltic concrete, and encourage use of dryer drum mixing plans. As might be expected, we have experienced some premature failures in experimental phases in which the new techniques have not been fully mastered.

There have been many changes that have occurred in the past several years which impact on asphalt cements and asphalt mixtures. These include the changes in crude stocks going to particular refineries, increases in aggregate fines from dust mitigation at some crushing operations, the return of fines from more efficient dust collection systems, and the use of more silicious aggregstes for friction properties.

While isolated cases of premature failures have occurred, these represent a minor segment of the overall construction. In an effort to improve pavement performance, FHWA has identified pavement management as a national emphasis area. The objective is to strengthen our pavement practices and to identify and address problem areas in a timely fashion.

4. **Currently, the Federal share for most Federal-aid highway categories is 75% or more. There has been a substantial increase in the Federal share over the past few years. What do you believe would be the advantages and disadvantages of returning to a more equal Federal-State partnership, for example 50/50?**

A possible advantage of lowering the Federal share for most categories would be an increase in the leverage of the Federal-aid highway program. In addition, the requirement for greater State investment in each project could result in more careful consideration of project decisions by States, resulting in a more prudent use of Federal funds. However, it should be noted that in many program categories most States' investments far exceed the minimum match requirement. For instance, in 1978 the Federal share of total investment in the primary and secondary systems was 55% and 25%, respectively.

On the other hand, if the Federal share was lowered in the present era of declining gasoline consumption and reluctance to increase taxes, some States might not be able to raise the revenue to match Federal funds for capital projects and would instead be forced to divert State funds needed for maintenance. Lowering the Federal share to 50/50 would also make the match for the Federal-aid highway program lower than the match for other federally assisted transportation programs. Changing the share for only one transportation program could inappropriately bias transportation investment decisions in some States and would be counter to the objective of increasing State flexibility in the transportation decisionmaking process.

5. **States and localities continue to express frustration over increasing Federal regulations and red tape. Are there any specific areas where these problems can be reduced or the process made more efficient? For example, would it be helpful to designate the Department of Transportation as the lead agency when several agencies' requirements are involved in a project?**

The FHWA specifically focuses on the reduction of regulatory requirements and red tape during the development of each new or revised regulation. In an effort to reduce regulations, every proposed action is thoroughly reviewed with the aim of (1) minimizing the imposition of requirements not contained in the law, (2) including only those requirements that are clearly necessary, (3) setting forth the information clearly and succinctly, and (4) assuring that supplemental information is clearly advisory and not being used as a regulatory substitute.

In efforts to reduce red tape, each proposed regulation or revision is reviewed to assure that (1) instructions are not lengthy and excessively detailed, (2) program responsibilities and related delegations of authority are decentralized to the lowest qualified level, (3) maximum flexibility and discretion is permitted, and (4) excessive reporting, submittal and program review requirements are eliminated. Two particular examples of efforts to reduce red tape are:

1. Implementation of certification acceptance procedures as adopted in 1974 (Section 117, Title 23, U.S.C., and 43 FR, October 12, 1978). Certification acceptance (CA) is an alternative procedure for administering non-Interstate Federal-aid projects intended to reduce the amount of Federal involvement by minimizing Federal supervision, reviews, inspections and approval requirements. Under CA, a State may use its own laws, regulations, and directives to process Federal-aid projects. States are given greater latitude by allowing use of State-developed specifications and standards individually tailored to meet conditions and policies in the individual States, and the use of State laws, regulations, and directives to accomplish the policies and objectives c Title 23. Discharge of project responsibility by FHWA is based upon acceptance of a State certification, not upon an "over-the-shoulder" monitoring process.

2. Study on "Acceleration of Highway Projects" (Section 141 of the Federal-Aid Highway Act of 1976). The U.S. 30 Bypass in Everett, Pennsylvania, was planned, designed and built to demonstrate the feasibility of reducing the time to complete a highway project. The selection of the project was made on December 1, 1976, and on August 2, 1980, the bypass was opened to traffic.

> Three years, 8 months, for completion of this project represents a time saving of more than 6 years, when compared to the average project of this size and type in Pennsylvania. The final report is not due to Congress until March 1981, but FHWA is already implementing several timesaving items through administrative changes. One such item is reemphasis of early public, local, State and Federal agency involvement. Another item is the use of critical path method techniques to establish project development timetables. However, most of the time savings gained on this project was due to the specific attention that was given to it--a level of attention that could not be given to many projects.

The increase in Federal regulations is generally the direct result of Federal statutes which introduce checks and balances by requiring one agency to watch over another agency in an attempt to satisfy various constituencies. For example, the Environmental Protection Agency is given broad oversight responsibilities with the attendant permits, consultations, etc. The same is true for the Corps of Engineers, the Coast Guard, Interior, etc. The DOT's pace in moving projects is dependent on the performance of these agencies with respect to their statutory responsibilities.

The involvement of the States, localities and the public in the rulemaking process permits maximum participation in development of a regulation and should result in more efficient procedures and the elimination of unnecessary requirements. In this area, FHWA has established and publicized mailing lists which are used to distribute copies of rulemaking actions in the specific areas of interest to the recipient.

In addition, as a result of a request from the President, the Department is reviewing its regulations to determine where the application of innovative regulatory techniques would be appropriate. In this regard, the views of the public are solicited through notification in the semiannual regulations agenda, on how such techniques can be applied to reduce regulatory burdens and governmental costs.

The reduction of red tape and elimination of unnecessary regulations will continue to be a priority objective in the administration of the highway program. Specific areas identified through these efforts will be considered and adopted, as appropriate.

6. There has been a proliferation of Federal-aid highway categories in the past. All were originally established to address a specific problem, but many of these categories could probably be consolidated or made eligible for funding through the major Federal-aid categories. Others could be returned to the States. Would you support such an approach, and how would you go about consolidating and eliminating categories? Specifically, which existing categories could be consolidated, eliminated, or returned to the States?

One of the most important provisions needed in highway legislation is the consolidation of the myriad programs and the elimination of categories and specific project designations. Consolidation of categories permits more effective use of resources and greater flexibility in the use of Federal-State funds. Creation of new categories, perpetuation of old categories, and citing or funding of specific projects generally do not further the highway program and are counterproductive.

Consolidation of categories, with broad eligibility coupled with transferability between the remaining categories, promotes more orderly and efficient transportation planning and management. Many category items are already eligible work items and thus only serve to increase the funding levels and do not provide the best transportation investment.

Specific categories that could be consolidated are being reviewed in the development of the Administration's highway legislation.

7. Would you favor the expansion of the 3-R program to include reconstruction? On only the Interstate System or on all Federal-aid systems?

The FHWA would favor expansion of the Interstate 3R categorical grant program to include reconstruction activities. However, we feel that it is unnecessary to establish a categorical grant for 4R on the other Federal-aid systems since these activities are already eligible within the presently existing primary, secondary, and urban programs.

8. **With 98% of the Interstate System open to traffic or under construction, the 1979 Interstate Cost Estimates shows that the remaining cost-to-complete is now $50.75 billion. Despite continuing Interstate construction apportionments, that amount will continue to increase so that under the current program the cost-to-complete will be over $42 billion in 1990. Clearly the 1983 and 1986 deadlines in current law cannot be met unless some changes are made.**

   (a) Would you support removing some items from the cost estimate and making them eligible under an expanded 3-R program?
   (b) What items, do you believe, should be moved to the 3-R program?
   (c) Do you believe the 1983 and 1986 deadlines should be adhered to?
   (d) Should States which have essentially completed Interstate construction continue to receive an apportionment in that category?
   (e) If Interstate segments are withdrawn from the Interstate Cost Estimate, do you believe sufficient funds will be available to finance substitution projects? Should highway substitution projects be funded from the Highway Trust Fund?

(a) In an effort to hold down the Interstate cost-to-complete, the FHWA has developed several options for removing items from the Cost Estimate and making them eligible under an expanded 3R program.

(b) The list of specific items that could be shifted to the 3R program are still under review within the Department and cannot be identified at this time.

(c) DOT places high priority on completion and opening the System to traffic and feels strongly that the 1983 and 1986 deadlines should be met. Along with consideration of options for redefining completion, various funding levels for the Interstate System programs are being studied by the Department of Transportation in order to ensure adequate funding to meet these deadlines.

(d) One option relative to a possible restructuring of the program is to eliminate the one-half percent minimum for States which have essentially completed their Interstate routes. Items deleted from the cost estimate would then be eligible under an expanded and increased 3-R program.

(e) Currently, funds to finance substitute highway and transit projects which have resulted from Interstate withdrawals must be appropriated from general funds before obligations can be incurred. Thus, the amount needed for substitution projects increases pressure for general funds. In the past, appropriations have generally been sufficient to cover the demand for substitute project funding. Funding substitute highway projects from the Highway Trust Fund would lessen some of the pressures on general funds and is under active consideration.

9. What do you see as the advantages and disadvantages of financing the highway program from general revenues rather than a trust fund?

The use of highway user taxes dedicated to the Highway Trust Fund has had broad public support as an equitable approach to financing the Federal-aid highway program because the beneficiaries of the highway system assume the cost of building and improving the system. The Trust Fund carries with it contract authority because the Congressional Budget and Impoundment Control Act of 1974 (P.L. 93-344) allows new spending authority in advance of appropriations if the budget authority is from a Trust Fund that is 90 percent or more financed from related user taxes. This provides a longer lead time than is available through the authorization process. Without the Trust Fund, the highway program would be subject to the annual authorization and appropriations process. The highway program would have to compete annually with other Federal programs for funding support. The appropriations process could create some uncertainty about annual funding levels and flexibility at the State level would be required to adjust construction plans to reflect the annual appropriations. Potentially, advanced appropriations could be used to reduce any funding uncertainty.

10. In the 1981 Federal Highway legislation option paper dated June 26, 1980, there is a section discussing the Highway Trust Fund. A statement there (page 61) indicates that a 2-cent per gallon increase in motor fuel taxes in 1982 would produce about $2.275 billion in additional revenues. How did you arrive at this number? Is it from a larger study or is it just your estimate?

In June the estimate of revenue from a 2-cent motor fuel tax increase was $2.275 billion. In July this estimate was revised downward to $2.204 billion. This is due to an estimated decrease in the highway use of gasoline because of decreased travel demand, more fuel efficient vehicles, increased consumption of gasohol, and other energy conservation efforts.

The June figure was based on the estimates of revenues prepared last December for the Highway Trust Fund 24th Annual Report (House Document No. 96-309) and the President's Budget for Fiscal Year 1981. These estimates were prepared by Department of the Treasury staff in consultation with FHWA staff. The July revised estimates were prepared for the Office of Management and Budget mid-year budget review by Treasury staff in consultation with FHWA staff.

The methodology of estimating the revenue was a simple arithmetic extrapolation by FHWA staff of the proceeds of additional 2-cent motor fuel tax over the estimates for that produced by the current 4-cent tax. That is, the December estimate of the proceeds of the 4-cent tax $4.551 billion, was multiplied by 1.5 to estimate that a 6-cent tax would bring in $6.826 billion. Thus, $6.826 billion minus $4.551 billion rends $2.275 billion from an additional 2 cents. The same procedure was applied to the July estimate of $4.409 billion from the 4-cent tax to produce $2.204 billion from an additional 2-cent tax. The FHWA analysts made no reduction in the demand for motor fuel for FY 1982 since it is believed that a 2-cent tax increase added to the current high price of gasoline and other motor fuels would have only a marginal effect on consumption of motor fuel for highway use.

11. In your testimony (page 6), you point out that in 1970, State-only funding provided 50 percent of capital improvement revenues and today 32 percent is State-only funding. In Table 1 of the paper you submitted to us, (page 9) "Total Disbursements by all levels of Government," it shows that in 1979 the States contributed $16.6 million of a $34 million total. We conclude then that the States are spending in areas other than capital improvement, so the Federal percentage there rises in proportion.

1. Is that a correct assessment?
2. What is your view of that trend, should the Federal funds go more and more to capital, and State funds to operating expenses?

Your observation is essentially correct as it applies to the Federal-aid primary system. The State-only share of capital expenditures on the primary system has declined from 50 percent to 32 percent since 1970, although the drop has been most evident on the rural portion of the primary system (51 percent to 20 percent). In urban areas the State-only program has increased on the primary system. It is also correct that States are spending more on non-capital activities, including maintenance, administration, law enforcement, and debt retirement.

In response to the second part of your question, Federal-aid highway funds have traditionally been limited to capital obligations, with only a minor portion devoted to planning and other non-capital items. We believe that sound fiscal and program management demands that the Federal-aid highway program remain a capital program and operations be supported by State and local agencies.

12. You express concern about the funding level of the 3-R program, with 2,000 miles of the Interstate System reaching its design life every year now. In S. 2913 we added "reconstruction" as a fourth "R," and substantially increase the funding from $275 million to $1.5 billion in 1983, when the 4-R program begins. At the same time we begin to trim back the newly defined Interstate new construction to reconstruction. Please comment on that approach.

The Department of Transportation supports this general approach. We believe the fourth "R" for reconstruction is vital, and that it is equally important to consider completion of the System and its relation to reconstruction. However, we have some reservations at this time about making detailed recommendations either for the appropriate levels of authorizations, or for specific construction items that should be eliminated from the definition of "completion" and made eligible under 4-R.

We prefer to await the data that is being collected and organized in preparation for the 1981 Interstate Cost Estimate. That data will provide the necessary documentation to make detailed and specific recommendations. We anticipate being able to use the data for this analysis within 2 or 3 months. Nevertheless, we support the general direction in which the Senate is moving on this issue, particularly the need for an accelerated and expanded 4-R program.

13. **We have seen a variety of numbers of bridges that seem to have an assortment of shortcomings. There is no question that any bridge which poses a clear hazard to the public should be closed and repaired. But, it is difficult to sort out how much of the $33 billion estimate is for that kind of job, and how much is for bringing bridges up to current standards that are already suitable for their location and use. Please comment on this.**

The $33.2 billion estimate to replace or rehabilitate our nation's deficient bridges, discussed in the July 1980 Annual Report on the Highway Bridge Replacement and Rehabilitation Program, included all Federal-aid system bridges eligible for the program and a projection of off-system bridges based on available bridge data.

It is estimated that $18.2 billion will be required to prevent closure or the imposition of very restrictive use of many of our deficient bridges if they are not replaced or rehabilitated in the near future.

14. Please indicate what the Federal role ought to be regarding the off-system bridge program. Where would you draw the line on what kind of work should be Federally funded, or what class of bridges, for example, some have a lot of traffic, some very little, some have commercial traffic and some do not.

Current program regulations are applicable to all highway bridges on public roads. This reflects the fact that, since the "off-system bridge program" is a part of the overall Highway Bridge Replacement and Rehabilitation Program, it should be administered in the same manner as the overall program. Under the current procedures, the FHWA, in consultation with the States, assigns a sufficiency rating to each bridge inventoried in order to establish eligibility and priorities for improvement of bridges. These are numerical ratings that are based on three major elements: the structural adequacy and safety, the serviceability and functional obsolescence, and essentiality for public use of each bridge. The latter item does consider the amount and character of traffic using the bridge. Each of the three elements is derived from numerical values assigned to structural and operational components of a bridge as a consequence of inspecting it.

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